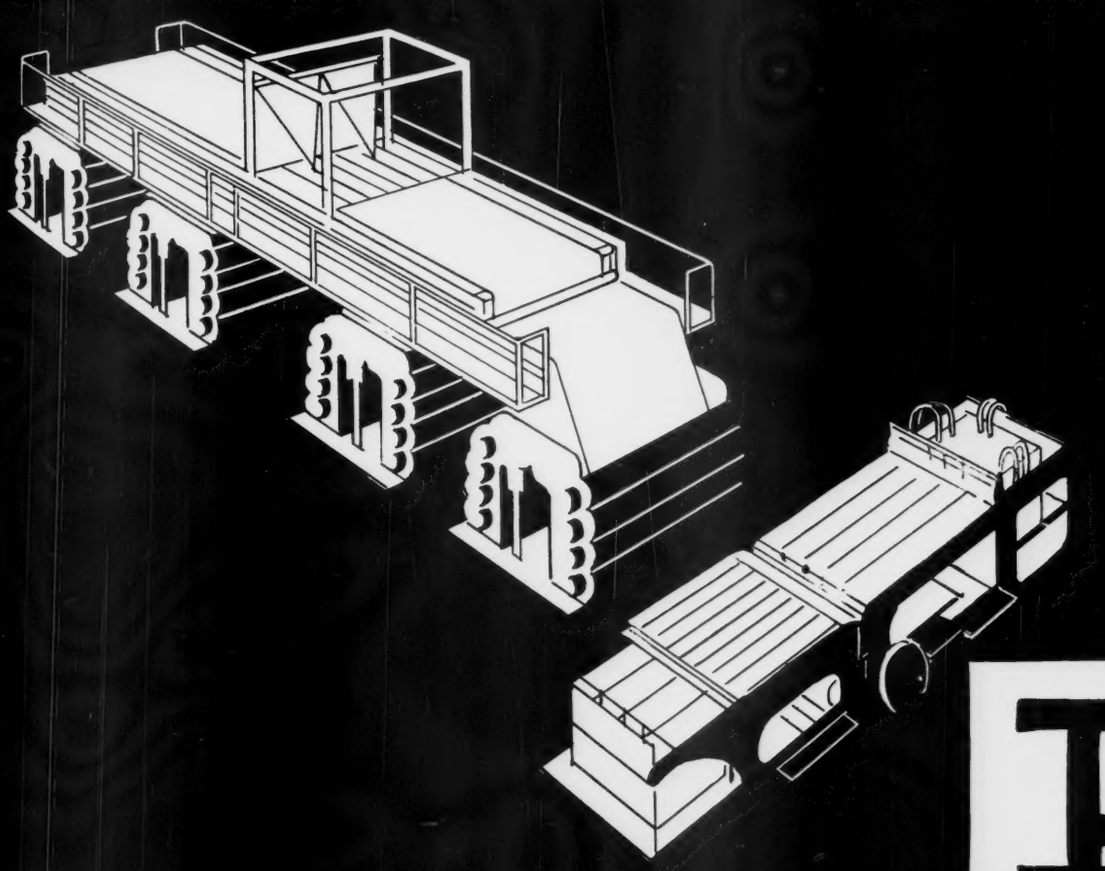
PRINTING EQUIPMENT ENGINEER

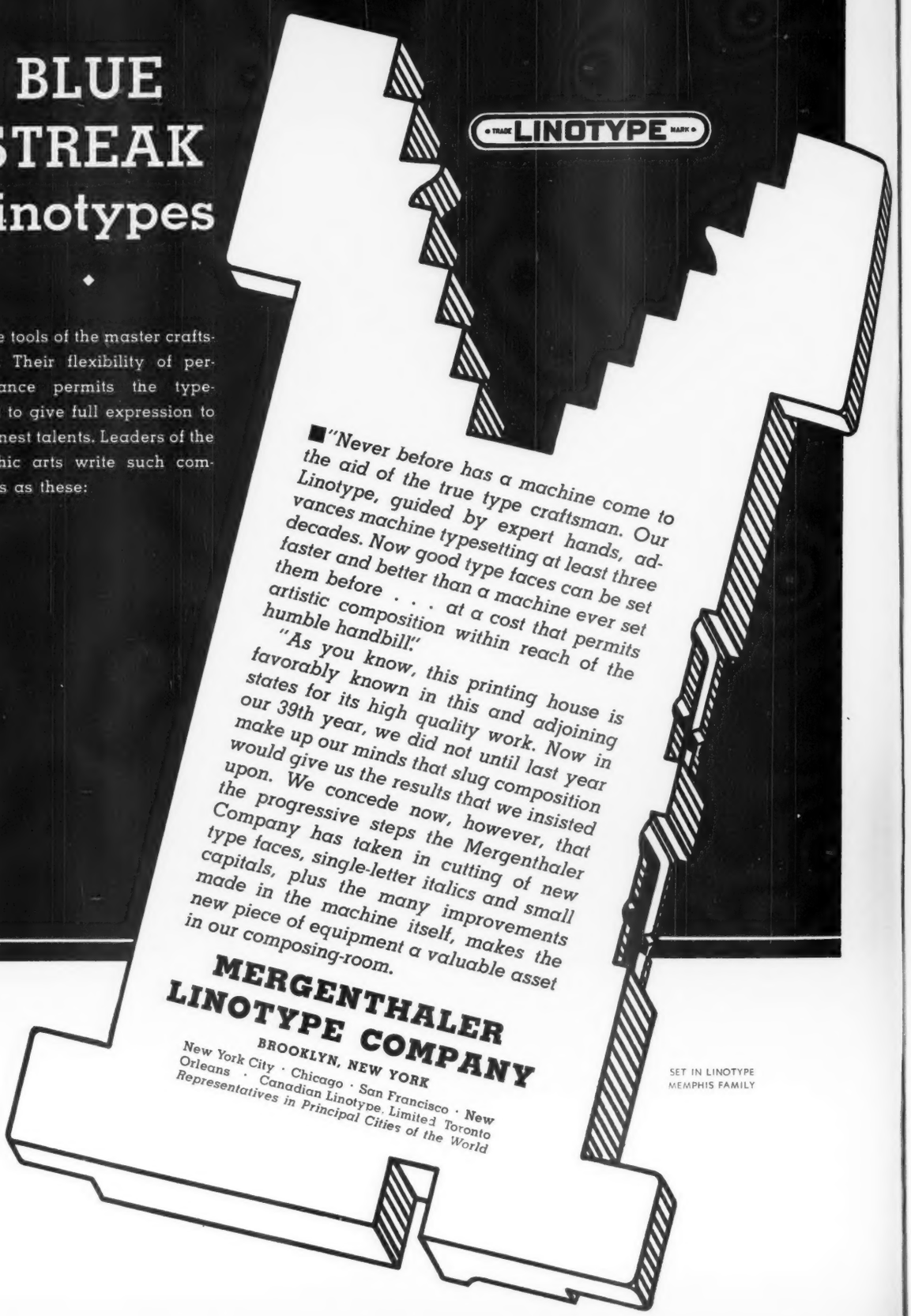


A TECHNICAL PUBLICATION FOR PRODUCTION AND MECHANICAL EXECUTIVES IN THE GRAPHIC ARTS INDUSTRY

BLUE STREAK Linotypes

◆

—the tools of the master craftsman. Their flexibility of performance permits the type-artist to give full expression to his finest talents. Leaders of the graphic arts write such comments as these:



■ "Never before has a machine come to the aid of the true type craftsman. Our Linotype, guided by expert hands, advances machine typesetting at least three decades. Now good type faces can be set faster and better than a machine ever set them before . . . at a cost that permits artistic composition within reach of the humble handbill."

"As you know, this printing house is favorably known in this and adjoining states for its high quality work. Now in our 39th year, we did not until last year make up our minds that slug composition would give us the results that we insisted upon. We concede now, however, that the progressive steps the Mergenthaler Company has taken in cutting of new type faces, single-letter italics and small capitals, plus the many improvements made in the machine itself, makes the new piece of equipment a valuable asset in our composing-room.

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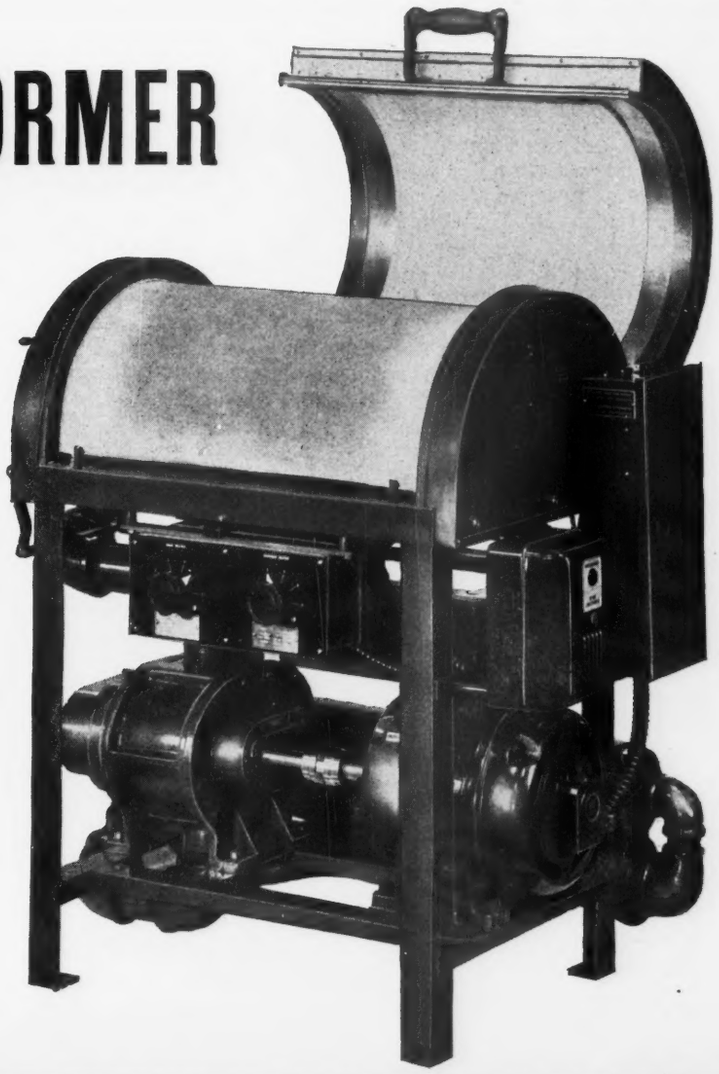

STAHI NEWSPAPER SUPPLY COMPANY, INC.

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Cost Computation

By CLYDE V. LANCASTER*

Exccutive thinks a reliable way of determining composing room costs is to figure the cost against the columns of revenue.

FOR several years, I have had indirect interest in and contact with newspaper composing room production costs, and in my present position I am, of course, now directly concerned with this problem. "Page costs" is a commonly used method in determining, or rather estimating, composing room production expense, but in my opinion such a method is similar to determining the length of a piece of string.

After we have divided the week's payroll by the total number of pages printed during that week, we have found that the cost of each page printed was so much, or that our piece of string is found to be as long as twice the distance from the center to one end.

The point I am endeavoring to make clear is that in finding what each of our pages cost to produce, we have not arrived at anything very definite, because, so far as I know, there is no established standard or gauge with which an average page cost can be compared.

Composing Room Executive Clyde V. Lancaster tells his plan for obtaining newspaper composing room costs.

One newspaper may have a page cost of $30, for instance, and that figure may be cheap for that particular newspaper, while another paper may have a page cost of $15 which may be high for that particular paper—the number of editions, make-overs, resets, etc., being expense factors.

If page costs meant a real basis for determining composing room expense, let me suggest that a simple method to *reduce* page costs is to *increase* the number of pages. This may sound paradoxical, yet since there is little variation in the number of employees in several departments in the composing room, the addition of two or four pages on each of three or four days in the week will add little to the total payroll, yet when these additional pages are divided in the total payroll at the end of the week, there will be found a perceptible drop in the cost per page, but of course no drop in total expense.

Since all of the expenses of a newspaper must be paid out of a common cash drawer, and since that cash drawer is replenished mainly from one source—advertising—in my opinion a more reliable method of determining composing room production costs is to figure the cost against the columns of revenue—or advertising.

Rather definite figures have been established as to the percentage of gross revenue that may be properly expended for each department of an average daily newspaper. For instance, if the cost of newsprint goes beyond a certain percentage of gross revenue, it at once becomes apparent that the circulation is top-heavy and a counterbalance must be applied.

Therefore, my preference for arriving at composing room production costs is per column of revenue—or advertising—rather than per page.

As an illustration—and let me say I have in mind the average small city daily—the payrolls in the makeup department, proof-room, machinists and for heads of departments vary little whether the total number of pages per week run 200, 210 or 220. The variation is chiefly—almost wholly, in fact—in the ad room and for machine composition.

Machine composition averages about 40 per cent of the total payroll; the ad room about 30 per cent; makeup, bank-man, ad alley, about 12 per cent; proof-room and machinists about 10 per cent, and heads of departments about 8 per cent.

One newspaper, we'll say, has an average weekly composing room payroll of $3000, and prints an average of 200 pages. The "page cost" would, of course, be $15.00.

That newspaper carries an average of 800 columns of advertising per week, which makes the cost per column of advertising carried, $3.75.

A second newspaper also has an average weekly payroll of $3000 and prints an average of 220 pages per week. The "page cost" would be $13.63 (and a fraction), or considerably *less* than the first newspaper.

This second newspaper carries an average of 700 columns of advertising per week, or at a composing room cost of $4.28 (and a fraction), or considerably *more* than the first newspaper.

The second newspaper may be deluded into the belief that it has a low cost of production as compared to the first newspaper, when, as a matter of fact, the cost per column of revenue reveals just the opposite.

Of course it is hardly probable that 220 pages may be printed as cheaply as 200. Neither is it probable that 800 columns of advertising will be produced as cheaply as 700 columns.

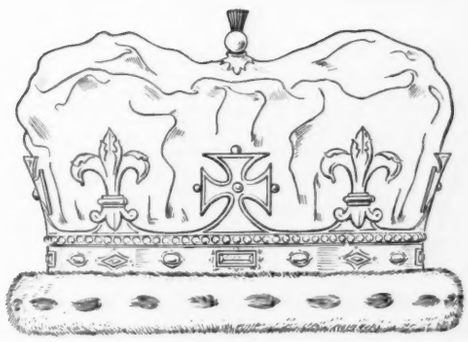
Let us presume that conditions on the first newspaper referred to above were "normal" with its 200 pages and 800 columns of advertising.

Machine composition would be the chief composing room expense to the second newspaper in adding 10 per cent, or 20 pages, to the weekly total.

So we'll add $120 (10 per cent of $1200, which is 40 per cent of the total payroll) to the $3000, making it $3120. But the second newspaper carries 100 columns, or 12½ per cent, less advertising. Therefore, we should deduct from the total expense $112.50 (12½ per cent of $900, which is 30 per cent of the total) which leaves us

(*Continued on Page 62*)

*Composing Room Foreman of San Antonio (Tex.) *Light*.



Coronet—New Ludlow Script

The new Ludlow Coronet is true to its name, for it is truly regal in its elegance and charm. Coronet conveys an impression of the finest quality, of up-to-the-minute style, of uncompromising standards. It reinforces the story of class told in the copy.

Equally valuable for commercial printing or advertising display, Coronet retains the practical advantages of all Ludlow typefaces. For with matrices of Coronet in the cases, there can be no question as to adequacy of supply for any job. Coronet can be used, therefore, without stint.

With slug-cast Coronet in the forms, jobs can be sent directly to press without the delay and expense of electrotyping, and the risk of costly damage by broken kerns. Coronet even stands up splendidly under the dry mat roller.

Specimens showing sizes of Coronet from 18 to 72 point will be gladly sent upon request.

Designed
72 Point Ludlow Coronet

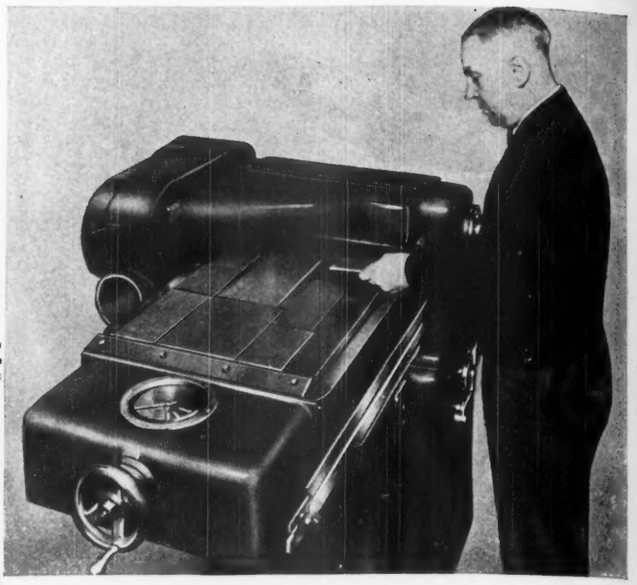
Modern Styles
48 Point Ludlow Coronet

Beautiful Typeface
36 Point Ludlow Coronet

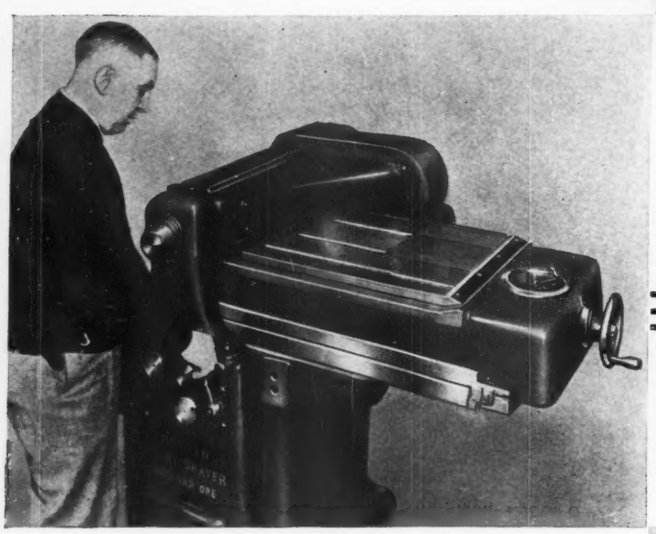
A New Creation by Ludlow
24 Point Ludlow Coronet

Ludlow Typograph Company 2032 Clybourn Ave., Chicago

PREMIER



1 Just set the dial on the PREMIER ROTARY SHAVER to gauge required, place group of cuts on bed, or single cut.



2 Throw in the clutch controlling bed travel and in a jiffy plates are passing under PREMIER'S MIRACLE ROTARY CUTTER

3 Plates are finished in twenty seconds, chips carried by vacuum to container and plates within vanishingly small tolerances.

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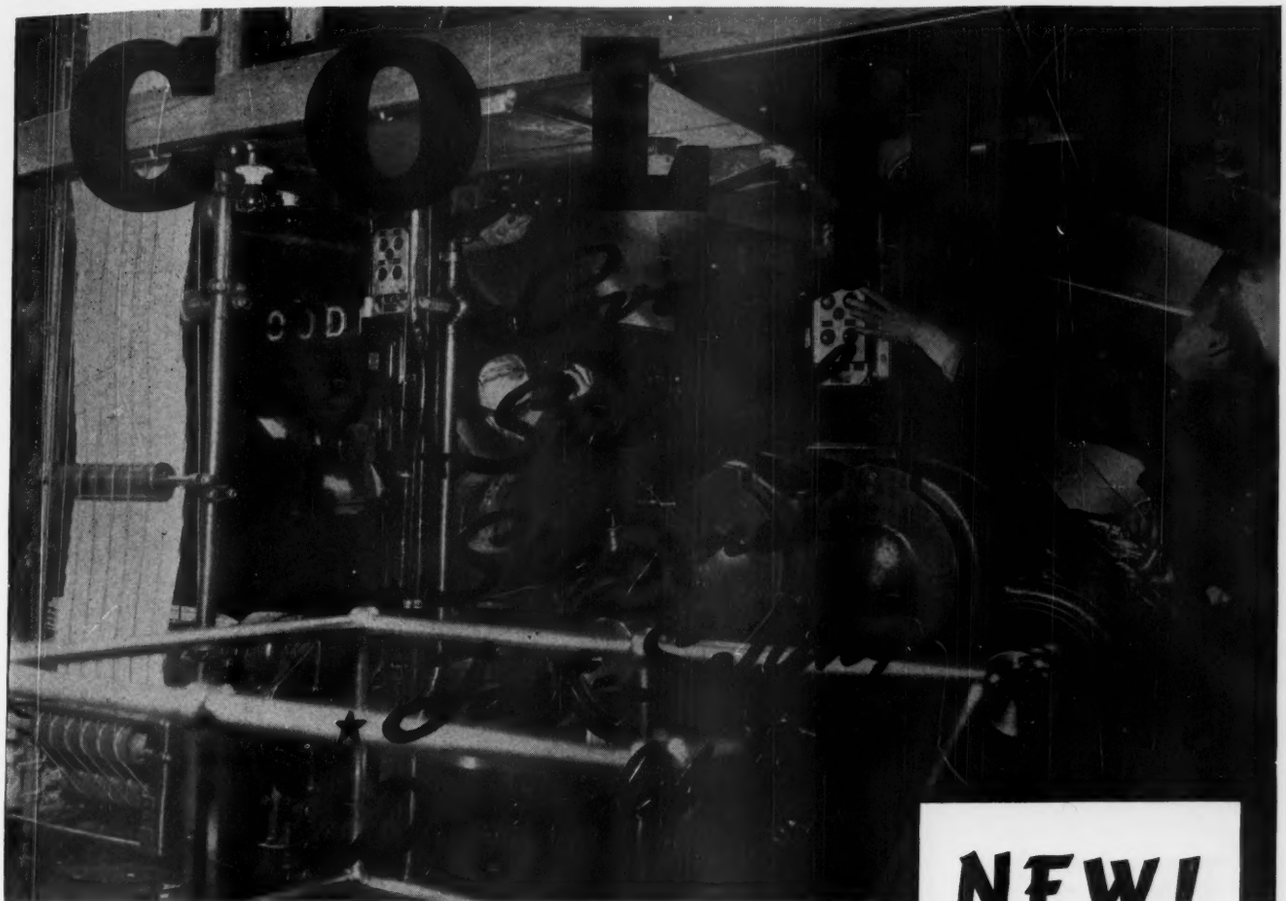
NEW STANDARDS IN NEWSPAPER



Today there's a vital new measure of the efficiency of your newspaper—the new standard colors adopted for newspaper printing Comparisons are now more readily made—printing-quality is spot-lighted as never before And the inks you use take on a new importance. No wonder, then, that more and more publishers are turning to Morrill, largest producer of fine news color inks, for the assurance that their inks won't let them down For users throughout the world have learned to depend on Morrill News Colors for all five essentials of finest newspaper color-printing—maximum coverage, brilliant strength, sharp reproduction, fast-setting qualities and easy-working features that assure trouble-free performance *** Your nearest Morrill branch will gladly show you why inks of these standards are less costly in the long run No obligation

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as adopted by the A.N.P.A.—A.A.A.A.—A.N.A.

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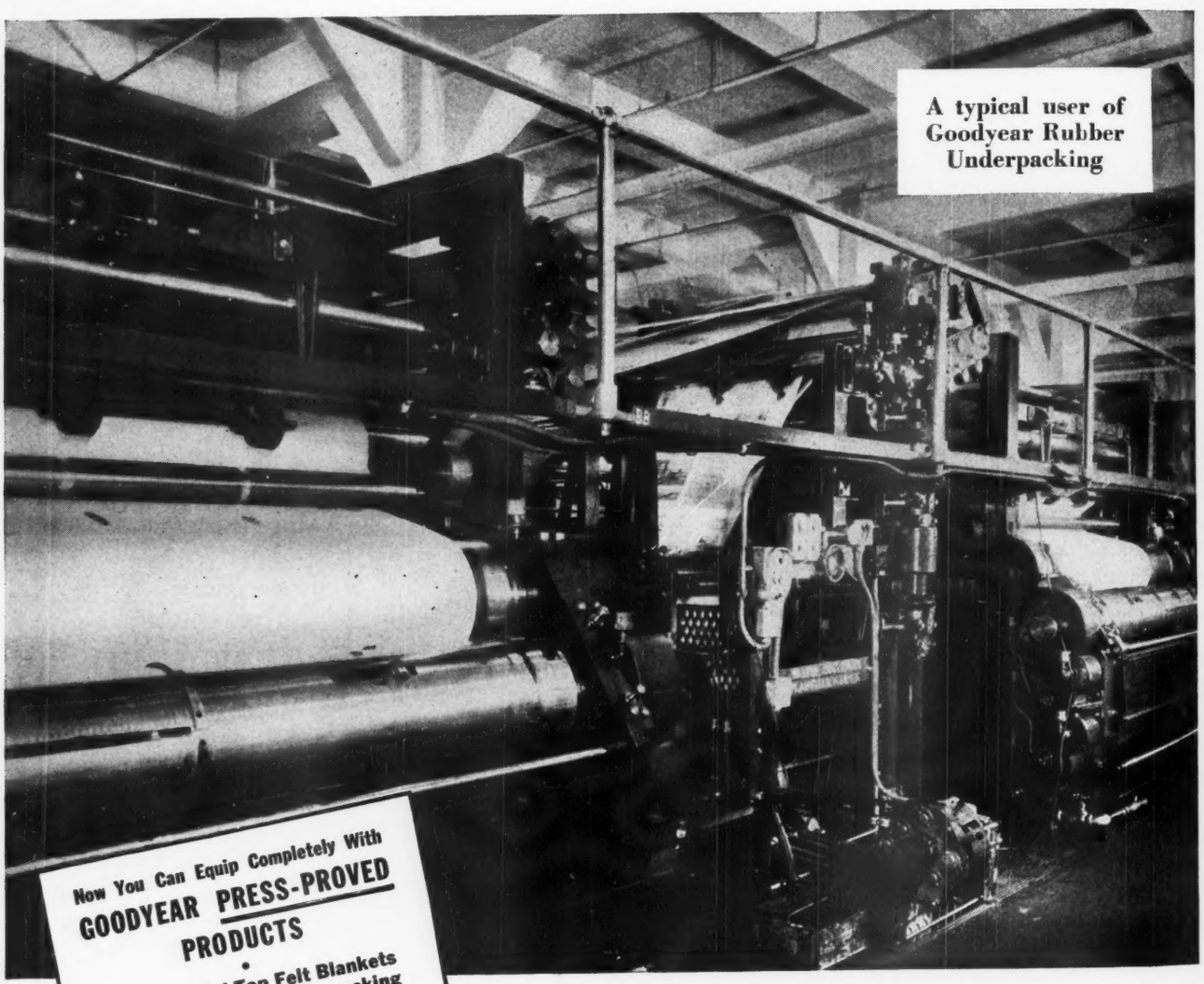
NEWS *color* INKS *by* MORRILL

What underpacking is best? America's publishers say "Goodyear"—and back their words by printing more newspapers on Goodyear Rubber Underpacking than on any other kind! Why don't you equip a press and see how much these press-proved blankets *improve* your print and reduce your costs?



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October, 1937

Volume 55 No. 1

A Monthly Publication

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A Technical Publication for the Mechanical Executive Responsible for Printing Production, Equipment and Supplies in the Commercial, Magazine, Private Plant and Daily Newspaper Field.

Published by Don Will • Edited by Mac Sinclair

Associate Editors: Ira D. Pilliard, Adam Henry Reiser

Printed on Kalle Prestex without offsetting, thanks to ATF Non-Offset Ease

MODERN MILEAGE

THE super-highways of today are the result of careful planning to give smoother, uninterrupted travel and to remove obstacles which once seemed insurmountable.

Modern mileage in printers' rollers has also been achieved through careful planning for a long and useful life plus the ability to smooth out difficulties which once were accepted as a part of the game.

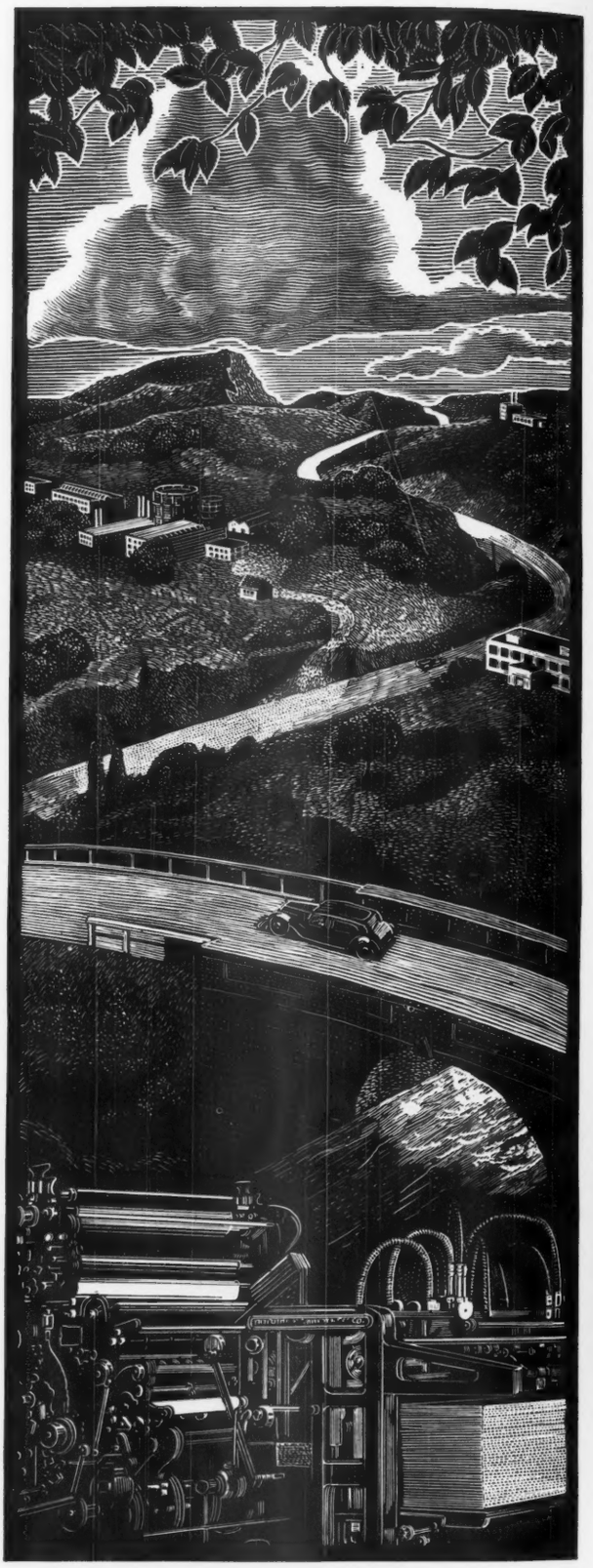
Craftsmen expect steady performance and results of the finest quality as well as longevity.

Ideal Rollers have proved their ability to meet the most exacting requirements.

All types of materials are available as coverings for Ideal Rollers—vulcanized oil, rubber, synthetics, non-meltable composition and many others. Such rollers are designed to meet every unusual condition that may arise.

Today is an opportune time to adopt these modern rollers for your modern plant and equipment.

An efficient representative of this company awaits the pleasure of serving you.



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IDEAL ROLLER & MANUFACTURING CO.

CHICAGO • • • • NEW YORK

Branch sales and service offices are located in principal cities

5 HITS BY ATF

Smart type faces, these—closely keyed to the tempo of the times. Smart, too, the printer or typographer who has them in his cases...With them he can meet the demand these faces have created among the buyers of quality printing. With them he can produce printing of the quality possible only with hard, clean-cut, accurately cast foundry type—in short, type by ATF.

ONYX

A hit because it compresses plenty of style, display and legibility into a narrow measure

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Scores because its lighter touch and distinguished height characterize current fashion

Kaufmann Script

Sets the high standard by which the legibility of all other connected scripts is judged

Kaufmann Bold

An all around success and a winner because of its unusual readability and general usefulness

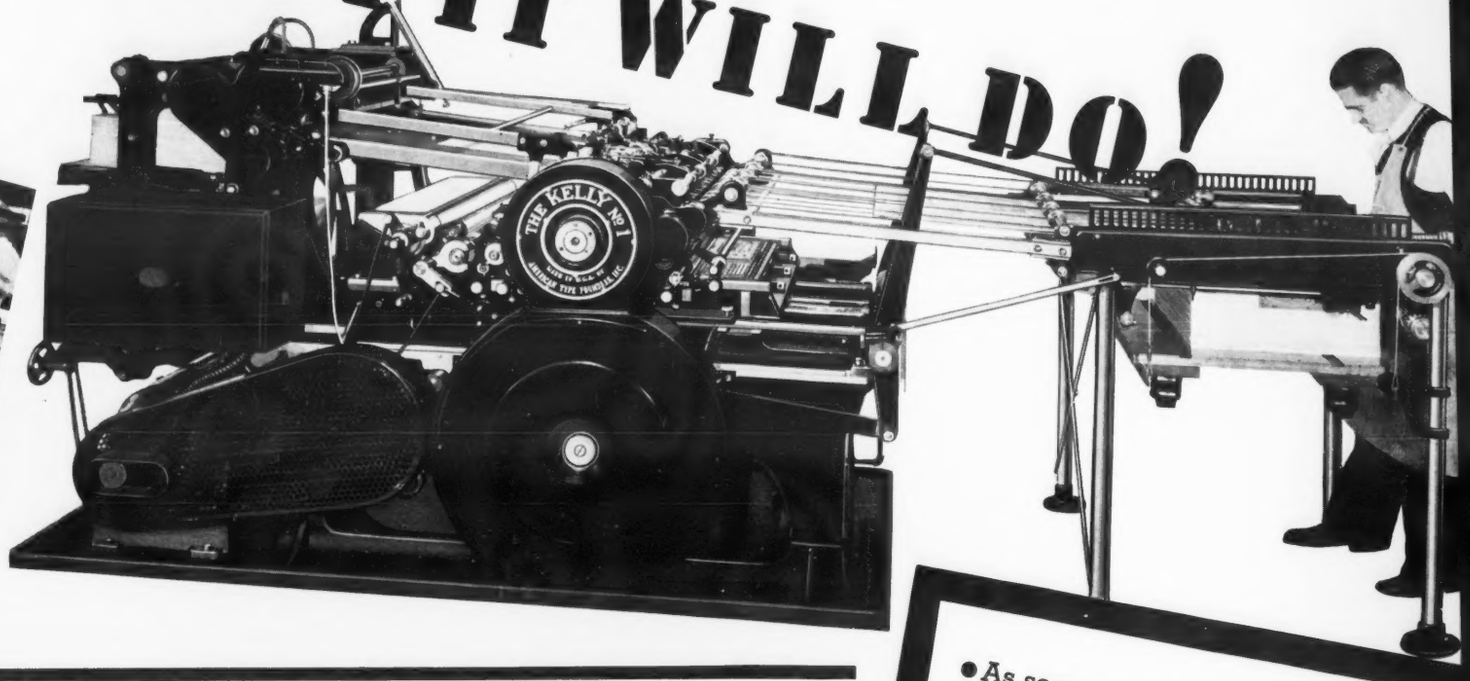
STENCIL

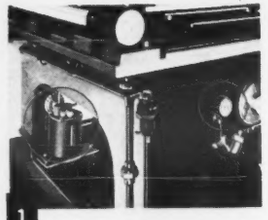
Newest of the five, brings a fresh note to those jobs that demand bold, vigorous display

AMERICAN TYPE FOUNDERS 200 ELMORA AVENUE ELIZABETH • NEW JERSEY

Printed on Kelly Presses without offsetting, thanks to ATF Non-Offset Guns

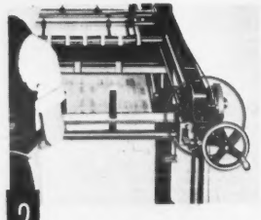
SEE WHAT IT WILL DO!





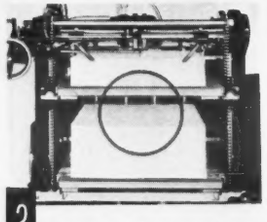
1 Automatic Lubrication

No time-out to oil main bearings, and longer life for your press. While the No. 1 is running, all main bearings are automatically oiled at regular intervals, saving 6 minutes a day. Proper timing and amount regulated by speed of press. Oil reservoir on left, easy to reach. Oil gage on right shows oil level at all times. Filter in oil pump prevents grit and dirt from entering bearings.



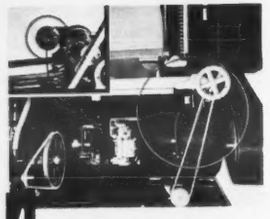
2 Automatic Lowering Delivery

Cuts down another pressman's chores, saves time and attention. Delivery holds 27" inches or approximately 6500 sheets of average stock, and is automatically lowers while press is operating. An additional new feature of the No. 1 Kelly is the lowered bar at the delivery, making it easier for the pressman to lift a sheet. Motor stop button is placed at left of delivery within easy reach.



3 Reloading Feed Table

With this feature you gain 28 minutes productive time each day by reducing shut-downs. Your pressman can reload extra feed board without stopping the press. As one pile is finished, he simply removes the empty feed board and a fresh pile is started in 20 seconds time. The capacity of the *improved* No. 1 Kelly feeder is 22" inches, or approximately 5500 sheets of average stock.



4 Improved Drive...Speedometer

The new Reeves Pulley on the No. 1 Kelly permits adjustment of press speed by means of a simple handwheel while the press is running. It is no longer necessary to find the right "step" or to stop the press. The improved drive of the No. 1 is very compact and highly efficient. The insert at upper left, the new Speedometer which helps eliminate guesswork in keeping proper speeds.

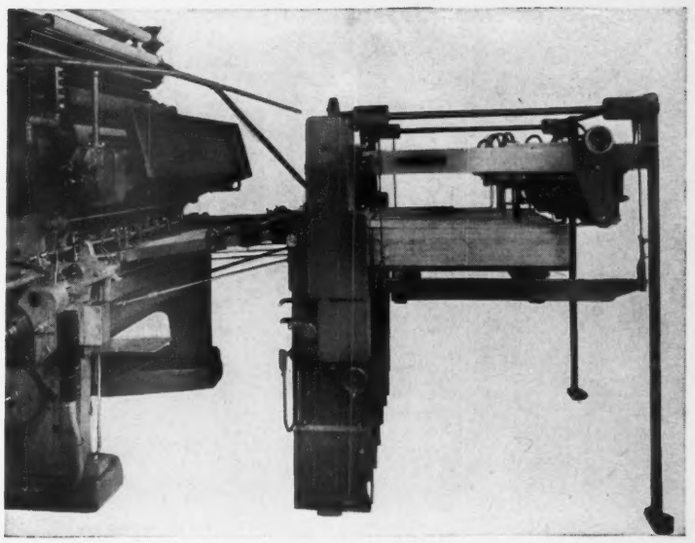
• As soon as the improvements on the No. 1 Kelly were made, we put through a press sheet that embodied the principal features of "run-of-the-hook" work you have every day in the standard 20x26 inch sheet size range. We used an oversize sheet 22x28 inches without tricks in layout or presswork. So, it's the kind of a job you'll appreciate. Your ATF

Salesman has one

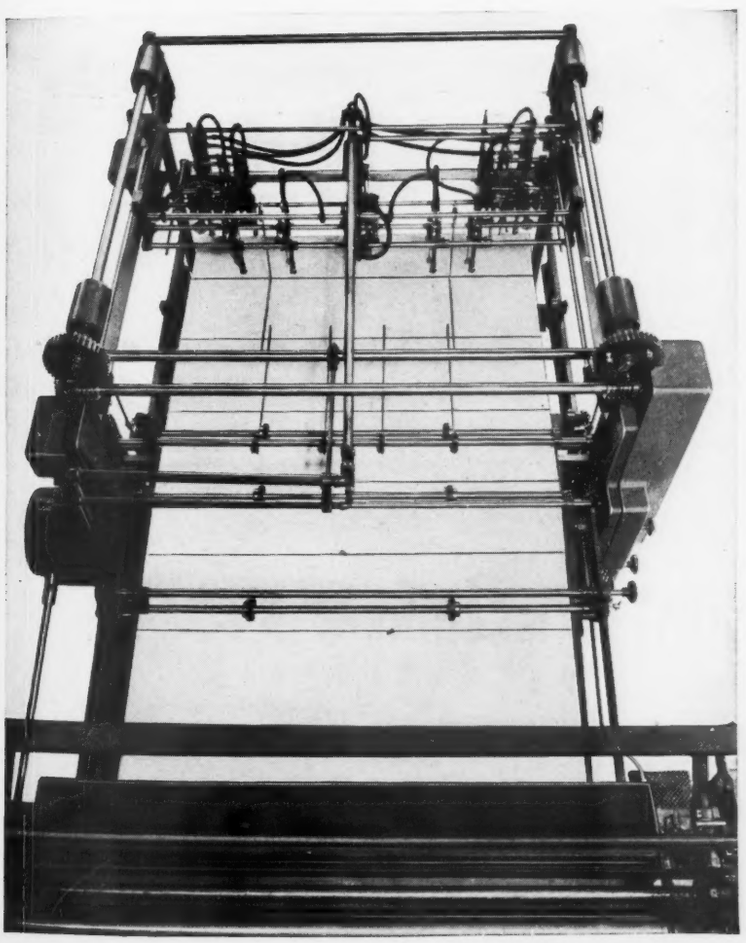
★ *Higher Production*

★ *Better Register*

★ *Lower Cost*



You get all three with the Christensen stream feeder



Here is a feeder that matches the high-speed capacity of modern presses, that improves register—that brings lower costs by reducing "down time" and providing quicker adjustment. Tight schedules move faster with this high-production machine. "On-time" deliveries of attractive jobs, reflecting high craftsmanship, mean more satisfied customers. Results of test installations in plants throughout the country—equipped with practically every make of modern press—have exceeded all expectations.

Ask yourself these questions:

1. Do your feeders limit the speed at which your presses operate?
2. Are you interested in improved register?
3. Would a feeder with pile height at eye level (which eliminates platforms, regardless of feed-board height) where adjustments can be made from the floor, improve register?
4. Can you appreciate the fact that a feeder presenting sheets to the front guides of the press at a sheet speed of but 8 to 13 inches per cycle would improve register?
5. Would a feeder conveyor that eliminates slow-downs and other sheet controlling devices, reduce "down time" on your press and feeder unit?

Investigate what stream feeding will mean to YOUR press equipment. Write today, for the facts and full information, telling us how you are equipped.

THE

Christensen Machine COMPANY

100 Fourth Street **Racine, Wisconsin**

NEW MILLER MAJOR

100% MODERN • PLANNED FOR PROFIT

. . . THE NEW MILLER MAJOR bleeds a 25" by 38" form — tissue or 30 point board — at speeds up to 3600 per hour — perfect register through full speed range — ample distribution for heaviest form and no roller reversals. The 2¼-ton way frame has four wide tracks which, with the newly designed and sturdily cross-ribbed bed and cylinder assure heavy, rigid impression. All-steel bed mechanism (not cast iron), Nitralloy or roller bearings and expensive alloys assure durability.

Controlled-sheet feeder, Automatic Oiling, Slow-down delivery, Tachometer, 2 to 1 Harmonic bed motion, Totalizer and many other Miller "advanced" refinements make this Major a modern necessity in these successful pressrooms throughout the country:

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Colwell Press	MINNEAPOLIS
C. R. Corniel, Ltd.	MONTREAL
Strawberry Hill Press	NEW YORK
Cadaco, Ltd.	OAKLAND
Franklin Printing Company	PHILADELPHIA
Case-Hoyt Corporation	ROCHESTER
Concordia Printing House	ST. LOUIS
Diers Printing Company	SEATTLE
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Send for copy of catalog on new Miller Automatics

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PITTSBURGH, PENNSYLVANIA

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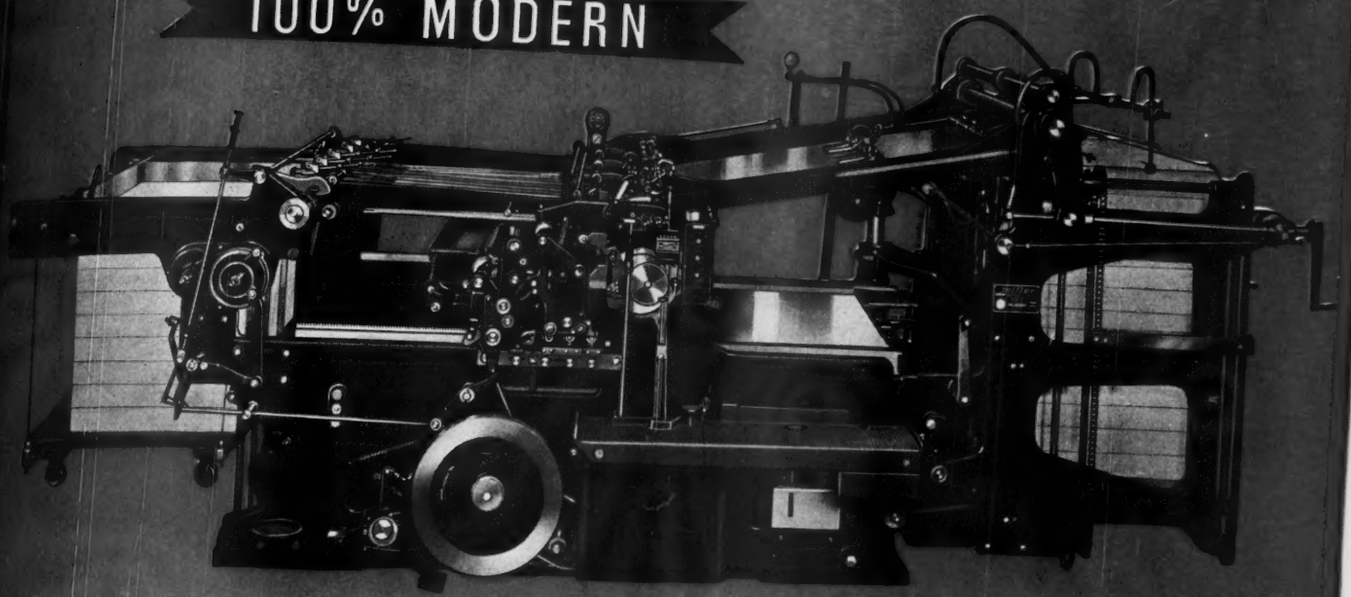
100% MODERN



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1. SLOW-DOWN DELIVERY. Patented. Assures accurate sheet alignment on pile at any speed. Rejogging unnecessary. Automatic pile lowering. Usually only one adjustment—for sheet size.

2. TACHOMETER. Shows running press speed. An aid to maximum speed maintenance. Original with Miller.

3. CONTROLLED-SHEET FEEDER. Sheet carried to front guides, by positive suction fingers. Simple; no tapes, balls or rollers to adjust or mark sheets. Form accessible under feed board; feed board swings up or entire feeder opens.

4. HIGH-SPEED CONSTANT INKER. Combination "ink mill" and rotary press type. Constant ink supply, not intermittent. No roller reversals on forms.

5. TOTALIZER. Records total impressions, from which durability of parts, periodical production, etc., may be instantly checked. Exclusive Miller feature.

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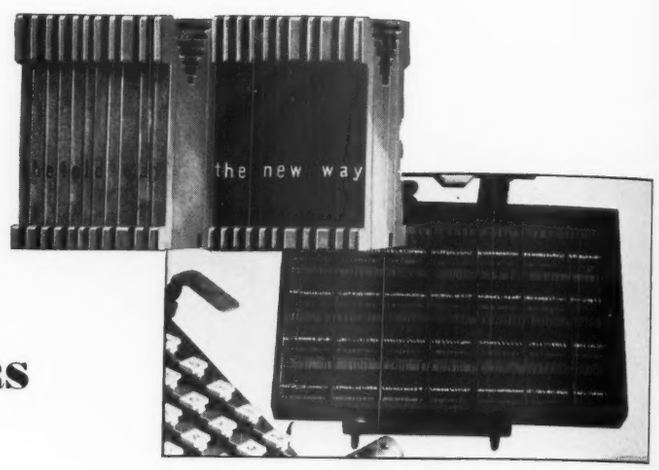
7. UNIT CONSTRUCTION. Feeder, press and delivery are designed and constructed under one roof as one machine; structurally united for greater strength and accuracy. Compact; other presses of similar sheet size require up to 50% more floor space.

Another Profitable Advantage of Black & White CONTRAST

BRILLIANT WHITE

REFERENCE MARKS

ON SORTS CHARACTERS



It is well known that Black & White CONTRAST makes it easy to notice and correct typographical errors in the assembling elevator before lines are cast.

But this is not the only advantage of Black & White CONTRAST.

For example, operators often refer to the savings of time—and the elimination of eyestrain—effected by contrast reference marks on sorts characters.

It is easy to find the wanted character. It is easy to distinguish between similar characters, such as accents, fractions, etc. Errors are prevented and time is saved.

Remember . . . Black & White CONTRAST is guaranteed to reduce total errors in slug composition at least 25 per cent. The actual average reduction is nearer 35 per cent. Write for printed matter on Matrix Contrast Service, including a tabulation of thirty-eight surveys made in newspaper plants.

MATRIX CONTRAST CORPORATION

EMPIRE STATE BUILDING, NEW YORK

Sole Licensees of the Percy L. Hill Matrix Contrast Patents Nos. 1,466,437 and 1,796,023

Register Technique

By STAFF WRITER

Causes of trouble for which to look and how to adjust and maintain the printing press for accurate register in color work

I.

POSITIONING of the impression on the sheet so that the print registers exactly where it should is the great adventure in presswork. The first step in multicolor printing is to position the plates of the key form which contains the outer dimensions of the pages. After the cylinder has been packed even with the bearers, the key form is made up from the layout sheet. Interlaying is done at the same time as follows: Instead of interlaying each plate with two blank sheets, these are omitted and an impression is pulled on three sheets. The first interlay is marked out, filled in and the plates moved as closely as possible to register. Another impression is pulled on two sheets, marked out for final interlay, filled in and the registering completed.

Register for Second Color

To register the plates for the second color, after position of first color or key form has been OKd, the press for the second color should be set just like the key form press in every way. About five sheets are next printed at speed on the key form and the third sheet of the five, which should be accurately fed to guides, is cut out or slotted at opposite points of print of each plate of the form.

A wood plug is placed in the groove of the patent base, on the second color press where the margin is at both ends of the sheet and a headless tack, to be a little over type high, driven into each plug.

The cutout sheet with print of key form on it is fed to the guides on second color press and run around the cylinder. A strip of reglet is secured with plate hooks on both sides of it where margin comes on base. The cutout sheet is registered face down over the headless tacks. Next a second reglet is tacked on the first to hold the sheet between them.

The plates for second color may be laid in position on the patent base by registering cutouts with plates. It is better to start at the corners and work toward center.

The hooks may be placed in the proper grooves as the plates are laid, saving the time lost shifting the hooks to other grooves if the plates are laid without a system which assures a close approximation to accuracy in positioning.

Moving Plates Accurately

In order to move plates accurately without loss of time, all of them should have hooks locked with the same tension—not some loose and others tight. Plenty of hooks should be used to hold the large plates securely in position.

It should also be noticed just how far a quarter, half and full turn of the key moves the hook in order to avoid measuring or guessing, with consequent loss of time. Instead of loosening hooks haphazardly it is better always to loosen those facing the cylinder and the feeder side of the press. This soon becomes a time-saving habit.

Whether a two-color job is printed on two single presses or a two-color press, the key form should be interlaid or underlaid completely before positioning. After position OK is obtained, the units should not be moved. As the key form is the master form, the second

(*Continued on Page 24*)

Production Managers and Mechanical Superintendents

are in a position to tell printing plant executives in other localities about production helps instituted in one or more departments of their plants. Such information may be about something developed in the photoengraving, composing, stereotype, pressroom or bindery department.

The editor of *Printing* Equipment *Engineer* invites you to tell our readers how you solved one or more problems. Just write informally with pencil on any kind of paper in case you don't have a stenographer or typewriter.

Editorial

Southern Highlights

SOME features of the first mechanical conference of the Southern Newspaper Publishers Association are worthy of note. Program Chairman Forstall announced at the opening session that topics related to all four major mechanical departments would be taken up at each session. This conduct of the program compelled full attendance of mechanical executives during each session for the reason that a departmental foreman didn't have any way of knowing when technical topics about his department would come up for consideration. As a result, all of these men became interested in the discussions concerning the other departments and we are sure they left the conference with a broader viewpoint.

It became evident that those mechanical executives who have invested in and are operating one-man photoengraving plants are all pleased with them and are satisfied that their investments are profitable.

The consensus of opinion seemed to be that the publisher should avoid further dry mat shrinkage in an attempt to decrease newsprint costs. In other words, it would be better for the publisher to get paid for full national lineage rather than shrink the copy to make a saving on newsprint.

Cranston Williams' discourse on Southern pine newsprint and the establishment of a two-machine mill at Lufkin, Tex., was illuminating.

The Conference passed a resolution requesting that the Intertype Corporation and Mergenthaler Linotype Company establish an interchangeable standard for alignment of two-letter 18 and 24 pt. display matrices.

The Southern Mechanical Conference not only invited manufacturer and supplier exhibits, but passed a resolution of appreciation for the participation of representatives in helping to make the conference a successful one.

Cranston Williams stated the Committee on Arrangements would have been satisfied with an attendance of 60 or 80 at the first meeting. The committee personnel were agreeably surprised that the attendance reached 260 mechanical executives and manufacturer and supplier representatives. All of which proves that the average newspaper printing plant executive is hungry for more technical information which may be useful in turning out a better printed paper.

Keeping Faith With The Backers

AFTER meeting all major expenses incidental to the XVIII Annual International Craftsmen's Convention, a balance of $2400 remained in the treasury of the Cleveland Club of Printing House Craftsmen. The decision of the Finance and Budget Committee of the Cleveland Club to refund 100% of the underwriting funds to care for pre-convention promotion is a worthy one and is a rather unusual procedure.

Through a long period of time, it has been a growing custom to depend upon employing printers, printing equipment manufacturers and suppliers for substantial support in promoting conventions. Without this help it would be impossible to provide some of the major de luxe meetings in the industry. A person is only kidding himself when he makes a statement that the Craftsmen's organization stands altogether upon its own feet in the matter of bearing its own finances in securing speakers for club meetings, arranging district conferences and international conventions. In particular, the support extended by manufacturers and suppliers, be it said, is given cheerfully and the influence of this group upon club educational activities is certainly wholesome—otherwise the Craftsmen's movement would disintegrate.

The reasons put forth by the Cleveland Club for returning the money to the underwriters are as follows:

> The underwriting funds having served their purpose, we have no further use for them.
>
> The Cleveland Club did not conduct the convention as a money-making venture.
>
> The Cleveland Club is purely an educational organization and as such has prospered and grown in size without having had a great amount of money in the club treasury at any time.
>
> We wish to keep our substantial sponsors on a partnership basis by conducting the club's educational activities on as high a plane as possible.
>
> We have always had the utmost cooperation from our manufacturer and supplier friends and Cleveland employing printers without spending much money for program talent.
>
> We wish to keep faith with those who had faith in us to the extent that they were willing to finance our undertaking previous to the convention.

Usually, Craftsmen's conventions are awarded to clubs in cities in which the club members have not had previous convention organization experience. It is undoubtedly true that in feeling their way along the members of a group make many mistakes but somehow or other their enthusiasm carries them through. In this connection it might as well be mentioned that assuming the responsibility for entertaining a convention of the proportion of the Craftsmen's group has become no small task, hence, the necessity for depending upon substantial help from employing printers, manufacturers and suppliers. On the other hand, the local convention host club membership always seems to at least double itself as a direct result of holding conventions.

The action of the Cleveland Club in returning 100% to its underwriters should convince everyone that Craftsmen wish to preserve their status as a purely educational organization.

And what is the Cleveland Club going to do with the

Employment and Service Department

for Readers of

Printing EQUIPMENT *Engineer*

Employers, production and mechanical executives may insert notices in this department.

Items for this department may pertain to the following subjects: "Executive Wanted," "Association or Partnership Wanted," or "Position Wanted," readers referring to subjects of a personal nature such as obtaining information about addresses of executives, supplying copies of technical articles and magazines, patents for sale or requests for contacts for developing and/or financing of inventions.

Any reasonable request from an employer or mechanical executive for the printing of a notice upon a subject other than the ones listed above will be granted.

Notices may be printed under the following regulations: First insertion (maximum six lines) is free of charge. All subsequent insertions of the same item subject to a charge of 75c per line in advance.

Address all communications with box number to *Printing* Equipment *Engineer*, 1276 West Third St., Cleveland, O.

COMPOSING ROOM SUPERINTENDENT—Wants connection with moderate sized modern daily. Thoroughly competent. Splendid references. Composing room costs a specialty. 17 years experience. Reply Box 33.

$500 balance? It would have been a simple matter for the Finance and Budget Committee to retain all or part of the $1900 underwriting money but the committee felt that inasmuch as there would be a balance of $500 after paying off 100% to the underwriters the Cleveland Club would be extremely fortunate. The $500 has been impounded in the club treasury and is to be used only for educational purposes. Sums may be voted out only by unanimous vote of the club's Board of Governors.

WITH MATRIX CONTRAST

Richard (Dick) Seymour who has been associated with Jack Burke, Production Manager of the Gannett Newspapers, and more recently with Southern newspapers in a mechanical executive capacity, has become identified with Matrix Contrast Corporation. He will travel in New York, Ohio and Michigan. Mr. Seymour is well known among mechanical executives in the A.N.P.A. Mechanical Conference.

GRIFFITH VISITS EUROPE

C. H. Griffith, vice president in charge of typographic development with the Mergenthaler Linotype Company, sailed for Europe on the *Europa*, September 28. Mr. Griffith will spend some six or eight weeks on the other side. He will discuss typographic matters with executives of companies affiliated with the Mergenthaler organization, and will visit printing centers in London, Paris, Berlin, Frankfurt, Amsterdam and other cities.

RETURNS FROM EUROPE

Neal Dow Becker, president Intertype Corporation, recently returned from his annual business trip abroad. Mr. Becker visited for several months with various selling agents representing Intertype in Europe, including his company's affiliated organizations in Berlin and London.

DENNERLEIN HAS NEW DUTIES

Peter J. Dennerlein, who has been assistant business manager and superintendent of the McCall publications plant in Dayton, Ohio, is now Director of Production, Crowell Publishing Co., Springfield, O.

LINE-CASTING MACHINIST DIES

James MacKirdy, in charge of the 75 Linotypes in the plant of the new York *Herald-Tribune*, passed away at his Brooklyn home the latter part of September from heart trouble. Mr. MacKirdy had been associated with the *Herald-Tribune* since 1893.

Craftsmen's Research Commission Meets in Cleveland as Guest of United Typothetae

Seated, left to right: Oliver Watson (Toronto), Past International President; Clark R. Long, (Washington, D. C.), President, International Association of Printing House Craftsmen; Hon. A. E. Giegengack, United States Public Printer and Chairman of the Craftsmen's Research Commission; V. Winfield Challenger (Philadelphia), President, Graphic Arts Research Bureau; J. Homer Winkler (Cleveland), Assistant Business Manager, Ace Electrotype Company. *Standing, left to right:* Charles D. MacGregor (Philadelphia), Manager, Magazine Press Division, Curtis Publishing Company; John B. Curry (Boston), Past International President. William C. Glass (New York), U.P.M.-Kidder Press Company, founder of the Printing Industries Division, A.S.M.E., met with the Commission but is not shown in this picture.

As guests of the United Typothetae of America, the Craftsmen's Research Commission met at Hotel Statler, Cleveland, Saturday morning, October 9. The purpose of the meeting was to formulate a program and afterwards meet jointly with the U.T.A. Research Commission to arrive at a plan of procedure for co-operative fact-finding. The Graphic Arts Research Bureau and A.S.M.E.-Printing Industries representation met with the Craftsmen's preliminary meeting.

At the joint meeting of the U.T.A.-Craftsmen-G.A.R.B. following the preliminary meetings, it was suggested that each of the three organizations represented retain separate identities and conduct their research activities for another year or so without a co-ordinating group to supervise the joint activities. It was definitely decided that each of the three organizations would select activities with the idea of avoiding duplication of effort and expense. The proposed program of each group undoubtedly will be announced at a later time. When available, details will be carried by *Printing* Equipment *Engineer*.

S.N.P.A. Mechanical Conference

By Mac Sinclair

First Meeting of Southern newspaper mechanical executives an outstanding success—Many manufacturers and suppliers represented.

CRANSTON WILLIAMS called the opening session of the Southern Newspaper Mechanical Conference in Birmingham, Ala., to order on Monday, September 20 in Birmingham, Ala. Greetings from member publishers of the Southern Newspaper Publishers Association and a welcome to Birmingham were extended by V. H. Hanson, Chairman of the Board, Birmingham (Ala.) *News* and *Age-Herald*. Cranston Williams outlined briefly the aims and objects of the Southern Mechanical Conference. He also stated that no labor matters would be discussed but that the Conference would be confined to discussion and analysis of production, technical and mechanical problems.

Mr. Williams introduced Frederick K. Forstall, Mechanical Superintendent of the New Orleans *Times-Picayune* and *States*, as presiding officer of the Conference. Mr. Forstall stated the success of the Conference and all future Conferences would be dependent upon the participation by mechanical executives in the discussions, and stated no speakers had been engaged and the program would be entirely informal in nature. Topics related to the four major mechanical departments in the newspaper were provided. The plan of conducting the meetings would be to discuss topics related to each department in rotation during each session.

After roll call of the registered mechanical executive delegates, Mr. Williams introduced Walter E. Wines, Manager of the Mechanical Department of the American Newspaper Publishers Association and Mac Sinclair, Editor of *Printing* Equipment*Engineer*.

Presiding Officer Forstall had previously explained that under each departmental section of the program, a number of leaders identified with that department would preside during the departmental discussions. The discussion leaders were: Composing Room Topics, George M. Stone, Superintendent, Atlanta (Ga.) *Constitution;* Pressroom Topics, W. L. Knighton, Pressroom Superintendent, Birmingham *News* and *Age-Herald;* Stereotype Department Topics, W. B. Astor, Jr., Stereotype Foreman, Memphis (Tenn.) *Commercial-Appeal;* Photoengraving Topics, Charles J. Conrad, Engraving Superintendent, New Orleans (La.) *Times-Picayune*.

Composing Room Topics

George Stone, having been introduced by Presiding Officer Forstall, assumed charge of the meeting and stated the first topic would be: (a) Cost per page in the composing room and (b) Uniform page cost system for both individual and combination papers. Mr. Stone defined page costs and explained their deficiencies. He explained the column cost method and thought the latter method is to be preferred in arriving at accurate costs.

George Holloway, Composing Room Superintendent of the Nashville (Tenn.) *Banner*, stated that his composing room costs are not handled through the business office but are kept by a composing room auditor which he engaged for that purpose. Through this system he has reduced correction costs 75%. His system gives a complete picture of all costs entering into composing room operation.

W. A. Carns, Mechanical Superintendent of the Birmingham *News* and *Age-Herald*, in response to a question asked by Topic Leader Stone, stated he kept no composing room cost records. He observed, however, that if his composing room costs did go up he always heard about it, but that if they didn't go up, he would have to find out about it himself. He stated a cost system no doubt is valuable if it were possible to get all other departments to cooperate.

In reply to a query, George Holloway stated overset in the Nashville *Banner* composing room had been reduced 15.00 to 10.20 per page.

The topic "How to Charge for Advertisers' Changes on Proofs" brought the statement from Mr. Stone that his plant charges for corrections but does not collect. Fred Forstall stated his firm collects for all corrections after the first proof and charges at the rate of $6 per column.

Handling Angular Composition

The next topic: "Methods of Handling Angular Ad Composition Such as Western Auto Ads" was discussed first by W. A. Carns, Mechanical Superintendent of the Birmingham *News* and *Age-Herald*. He stated in his plant the advertisement is set, the proof is OKd and a flat cast containing angle cuts is then made. He prefers this method to cementing cuts on bases since, in his opinion, it is cheaper and more satisfactory. It takes time to remove cuts from bases after molding and if the cement is permitted to ooze from underneath the cut (due to excess use of cement) the mat fibres are damaged.

W. B. Astor, Jr., Stereotype Foreman of the Memphis (Tenn.) *Commercial-Appeal*, uses

Cranston Williams, Secretary-Manager of the Southern Newspaper Publishers Association acted as publishers' representative and as a godfather to the organization of the first Southern Mechanical Conference. Here the energetic Mr. Williams is shown discussing the development and manufacture of newsprint from Southern pine.

A new mill located at Lufkin, Texas, of two-machine capacity, will be ready for operation in 1939. The product of the mill will be made entirely from Southern Pine.

The first Southern Mechanical Conference got away to a good start under the supervision of Presiding Officer Frederick K. Forstall, Mechanical Superintendent of the New Orleans Times-Picayune *and* States. *At right is shown V. H. Hanson, Chairman of the Board, Birmingham* News *and* Age-Herald. *Mr. Hanson is proud of the South and made the mechanical executives feel at home with his warm welcome.*

Sanford's paste to cement cuts. A thin sheet of paper is interposed between the cut and base to improve adhesiveness.

Besides Booth's Zink Cut Cement, others spoke of various kinds of cement. One product mentioned is Duco cement made by duPont.

Four-Point Column Rule

It seemed to be the opinion of Guy Aycock, Pressroom Foreman of the Chattanooga (Tenn.) *News* that 4 point column rule created a tendency to cause the reader to read straight across the rule into the opposite line. It causes an unnatural condition. He further stated there is a tendency for the rule to wave in the form because of its frail body. Other executives present agreed with Mr. Aycock.

In reply to the topic: "Handling of National Copy—are plates stored in national department and sent to composing room with copy on date of insertion?" Mr. Carns expressed a preference for handling national copy and campaigns in the composing room. For instance, if a campaign is received in August, it gives time for his composing room to get set on an entire series of ads during the dull season. The only difference is that when national ads are handled by the composing room it adds to composing room page costs instead of being charged to business office expense.

Plate Standardization

At this juncture, Presiding Officer Forstall invited W. E. Wines to comment upon the possible standardization of plates and the issuing of better instructions by agencies in insertion and change orders. Mr. Wines related the procedure at the Chicago A.N.P.A. Mechanical Conference at which time no direct action was taken. The A.A.A.A. Committee had never reported on the matter. He stated the whole subject is somewhat of a mess and at the present time no one has gotten anywhere in particular. He can't see that there is likely to be a real solution on plate standardization. The requirements of the plant printing by flat-bed presses are different than those using dry mats, as the flat-bed plant would be compelled to print an advertisement oversize in case a similar plate were sent as in the case of the dry mat plant. The issuing of various kinds of instructions and furnishing various sizes of plates of the same advertisement would entail considerable expense to the agency which would have to come out of its appropriation.

Underlaying Cuts

To change topics, Presiding Officer Forstall called Stereotype Foreman W. B. Astor, Jr., of the Memphis *Commercial-Appeal* to preside during discussion of stereotyping topics.

In answer to the topic: "Underlaying and overlaying electrotypes for maximum reproduction," L. E. McCracken, stereotype foreman of the Atlanta *Georgian* asserted he gets better results without underlaying cuts very much. With reference to improving the appearance of halftones, Fred Forstall stated his stereotyper rubs down the highlights in the mat in certain instances to secure better reproduction.

Stereotype Foreman W. I. Calloway of the Atlanta *Journal*, feels that best results are obtained if electros are mounted from 0.003 in. to 0.004 in. above type high. In response to W. B. Astor's question "If electros are mounted 0.003 in. to 0.004 in. high do they print better without makeready?" Mr. Calloway answered "Yes."

The topic 'Standardized mats from agencies" brought some comment from Fred Forstall, who asked "What happens to the little stereotyper who has no shaver when he receives two thicknesses of mats?" W. I. Calloway remarked "The stereotyper in that case builds up the cast with 2 pt. or 6 pt. slugs. Fred Forstall stated his stereotyper has a method for casting liners 3 pts. or 4 pts. thick to build up the thinner casts.

Upon invitation from Mr. Forstall, W. E. Wines explained the method used in the plant of the Westchester County Publishers, Yonkers, N. Y. to make electrotypes the proper thickness for mounting upon 0.764 in. base. This is also described in a box accompanying this report of the S.N.P.A. proceedings.

Stereo Plate Thickness

The chairman requested W. F. Grenier of the New England Newspaper Supply Company, Worcester, Mass., to approach the platform and discuss the topic: "What thickness should a stereotype plate be when finished for the press?" Mr. Grenier's remarks will be found in a box accompanying this report of the proceedings.

It was the consensus of opinion among several mechanical executives that double trucks are preferred for the molding of double-page advertisements by stereotypers over setting double-page ads in single chases.

Manipulating Halftones

Topic Leader Astor brought up the topic: "Halftones—do they print better when boosted 0.003 in. or 0.004 in. over type-high'?' W. A. Carns stated it is customary to mount halftones approx. 0.004 in. over type-high in his plant. As a further effort in obtaining good

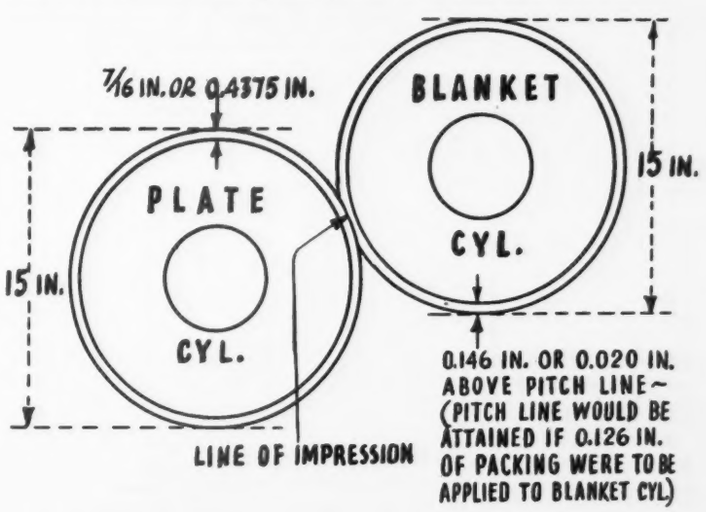
Stick to 7/16 in. Plate

"WHAT thickness should a stereotype plate be when finished for the press?" is a question that came up for discussion at the first Mechanical Conference of the Southern Newspaper Publishers Association in Birmingham, Alabama, under the stereotyping section of the program on Monday, September 20.

Topic Leader W. B. Astor, Jr., requested William F. Grenier of the New England Newspaper Supply Company to approach the platform and discuss the question.

Mr. Grenier said: "The newspaper printing press builder makes press cylinders 7/16 in. or 0.4375 in. below pitch line.* For the purposes of this explanation we will assume that a press is fitted with impression (blanket) cylinders fully dressed with blankets and plate cylinders to which plates have been applied. Each of the cylinders (for illustrative purposes only) is 15 in. diam.

"Press builders build plate cylinders 7/16 in. or 0.4375 in. below the pitch line. Before the plate is applied to the cylinder it is 0.4375 in. Now, if you put on a 7/16 in. plate, you bring that cylinder up to pitch line.


7/16 IN. OR 0.4375 IN.
BLANKET
15 IN.
PLATE
CYL.
15 IN.
CYL.
0.146 IN. OR 0.020 IN. ABOVE PITCH LINE~ (PITCH LINE WOULD BE ATTAINED IF 0.126 IN. OF PACKING WERE TO BE APPLIED TO BLANKET CYL)
LINE OF IMPRESSION

"The blanket cylinder is cut 0.126 in. below pitch line, so if you put on 0.126 in. points (thousandths) of packing (blankets) you will bring the blanket cylinder up to pitch line.

"You now have two perfect 15 in. circles the surfaces of which are traveling in true rolling contact. But you can't operate a press under these conditions because no allowance has been made for impression of the plate into the blanket cylinder surface. In order to provide for impression (squeeze) you build up the blanket 0.146 in. or 20 points over the blanket cylinder pitch line.

"This relationship of the plate and blanket cylinders will provide proper impression until the blanket cylinder has been reduced in diameter approximately 0.005 in. *below* the pitch line, or until the arc of the blanket cylinder has been reduced sufficiently so that the impression has been destroyed.

"From this explanation it will be seen that if you apply a plate to the plate cylinder which measures much in excess of 7/16 in. you will destroy true rolling contact with consequent operating troubles by way of tearing the paper web as it passes between the cylinders. My advice to you is to leave the plate thickness alone and stick to 7/16 in. plates as the manufacturer intended."

**Pitch line, as all informed mechanical executives understand, is the line in each of th[e] toothed gears on the plate and impression cylinders which bear such relationship to each other that when the two gears work together the two lines will have a common velocity or true rolling contact without rubbing or friction.*

halftone reproduction, the pressman overlays social layout halftones on the press if there is time to do so.

T. C. McLemore, Mechanical Superintendent of the Mobile (Ala.) *Press-Register*, states it is customary for the stereotyper in his plant to use a razor blade to cut out the highlights and underlay them before molding on social layout pages. Mr. McLemore doesn't believe anyone can have a set rule for underlays by stereotypers or overlays by pressmen—the amount of work to be done is entirely up to the judgment of the stereotyper or the pressman.

Etching Depth

Charles J. Conrad, Photo-engraving Superintendent of the New Orleans *Times-Picayune*, explained to the stereotype query "Trouble from under-etched halftones," that it doesn't matter if etching depth is greater than 0.004 in. provided the dots are pyramidal and that in his opinion a depth of 0.006 in. or 0.007 in. is useless.

More Attention to Solids

Louis P. Hess, Engraving Superintendent of the Memphis (Tenn.) *Commercial-Appeal*, made a plea, in the interests of better newspaper printing, that more attention be paid to solids in cuts. In his opinion, solids should be put in the photo by the artist. Print with ink rather than with impression. Make it possible for the stereotyper to cast a plate which will print in its true tonal values.

T. C. McLemore and Topic Leader Astor concurred in the utility of powdered mica and zinc stearate for rubbing into mats to prevent metal tearing or sticking the mat.

Monday Afternoon Session

The opening of Monday afternoon's session was devoted to pressroom topics under the direction of Topic Leader W. L. Knighton, Pressroom Superintendent of the Birmingham (Ala.) *News* and *Age-Herald*. Mr. Knighton prefaced his remarks by stating that all mechanical executives should consider the various elements constituting presswork as consisting of (1) the surface to be printed from, (2) the surface to be printed upon and (3) impression.

Leven Deputy, Mechanical Superintendent of the Dallas (Tex.) *News-Journal*, discussed newsprint with respect to one side of the paper printing while the reverse side is not a good printing surface. In the *News-Journal* plant, second impression is printed on the wire side to get the best appearance and to print both sides of the sheet as nearly alike as possible.

Art Work on Second Impression

Fred Connell, Composing Room Foreman of the Atlanta (Ga.) *Journal*, asserted one thing would help to improve newspaper printing. Whenever possible, the paper should be laid out so all art work will appear on the second impression.

After some further discussion by various mechanical executives, Chairman Knighton called for a show of hands of those pressmen who have never complained to their publishers about the quality of newsprint. Not a single hand was raised in response to Mr. Knighton's request.

Keep Paper Stock Moving

Guy Aycock of Chattanooga rose to his feet and declared there is a lot more to the newsprint question than criticizing the paper mill. He asserted that all pressroom executives should keep old paper stock moving out as the new stock is brought in to avoid change of color from ageing.

Pressroom Superintendent C. H. Turner of the Atlanta (Ga.) *Constitution*, asserted that the paper makers and ink manufacturers have gotten too far apart.

Steam for Newsprint Moisture

Fred Forstall described the installation of pet cocks on the steam risers in the plant of the New Orleans *Times-Picayune* to provide moisture for the paper and stated the release of steam vapor into the paper storage room helps considerably. Mr. Forstall feels that newsprint quality has gone down as the years have gone by. There are various reasons for this: (1) Wood pulp has become scarcer, (2) water-is not as pure, and (3) the publishers' demands for mileage in newsprint.

George M. Martin, Production Manager of the Louisville *Courier-Journal*, upon being requested to do so, described the washed air system in use in the *Courier-Journal* plant.

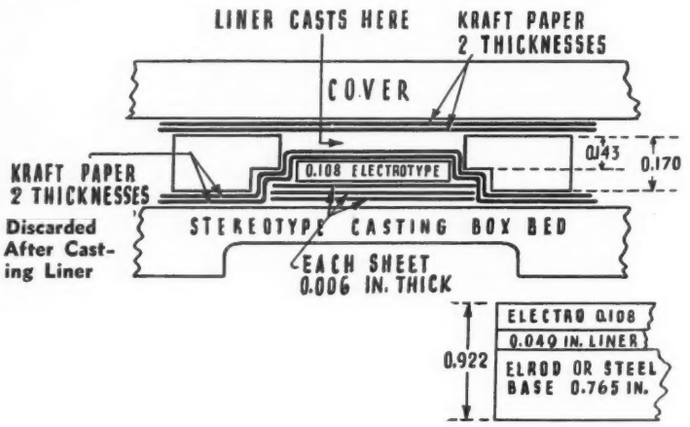
A mechanical executive thinks "We should strive for standardization in newsprint. In view of the battle on price by the publishers and papermakers, with the pressman in the middle, perhaps standardization would remedy the difficulty if it could be brought about."

Grinding Rollers

Peter Prassinos, Pressroom Superintendent

Casting Liners to Build Up Electros

A METHOD for casting a liner or build-up plate for electros which are to be mounted on 0.765 in. Monotype or Elrod base is in use in the plant of the Westchester County Newspapers, New York. This method of casting liners from stereotype metal was described by Mechanical Superintendent Charles Frederickson at the A.N.P.A. Mechanical Conference, Chicago, June, 1937. Advertising electros received in newspaper plants are unmounted because wood mounting is impractical for stereotyping purposes and a metal base must be used. These electros are supposed to be 0.105 in. thick but vary somewhat from time to time by several thousandths. Another reason for casting the thin plate, or liner, is that many newspaper composing rooms only have one height of base (Monotype or Elrod) which in some cases is 0.765 in. Many newspaper stereotype departments are not equipped with plate and base shavers or milling machines and therefore cannot cast and shave the base upon which to mount these electros. To overcome this problem, Charles Frederickson, Mechanical Superintendant of the Westchester County Newspapers (New York) advises his papers are using a system for casting the liner from stereotype metal mentioned above for each individual electrotype. When the liner and electro have been mounted on the 0.765 in. Monotype or Elrod base (in the case of the Westchester County



papers) the whole assembly is 0.922 in. high. To illustrate: Height of base is 0.765 in.; thickness of electrotype, 0.108 in.; thickness of stereotype metal liner, 0.049 in; total thickness, 0.922 in.

In the cross-section diagram is shown the method of preparing the stereotype flat-casting box for casting the liner. On the bed of the flat-casting box (when in horizontal position) are placed three sheets of paper each approx. 0.006 in. thick or a total thickness of 0 018 in. Place the electro face down on the three sheets of paper. Now place two sheets of Kraft paper over the electro and the three sheets of paper under the electro. Place the side gauges over the Kraft paper as shown in the diagram with the recessed portion of the gauges extending *over* the three sheets of paper upon which the electro is resting. The inside vertical edge of each side gauge is to abut the Kraft paper at each side of the electro. It will be noted that the two sheets of Kraft paper extend under the side gauges but the three sheets of paper underneath the electro *extend only into the recess of each gauge*. Two sheets of newsprint or regular back sheet are now placed over the gauges. The casting box cover is now closed and the metal is poured. The cast is trimmed to size after being removed from the box.

As is shown in the diagram, the two sheets of Kraft paper which have been placed over the electro previous to casting are discarded after the cast has been made. The thickness of these two sheets is not important. However, the thickness of the sheets which are placed *under* the electrotype is an important matter. (The thickness of these sheets regulates the thickness of the liner which is to be cast.) Some of our readers may feel there is a discrepancy in the 0.018 in. thickness of the three sheets placed under the electro and may figure that these should be 0.011 in. total thickness. This is not the case, because allowance must be made for shrinkage of the cast and an unavoidable shrinkage in the thickness of the paper under the electro when the heat from the molten metal is transmitted through the electrotype. The locking arrangement on the casting box may have something to do with this discrepancy.

of the New Orleans *Times-Picayune*, described his method of grinding rubber rollers. F. P. Peters of the Rapid Roller Company, described the technique of roller grinding and stated that a 6 in. roller could be ground and polished in 45 min.

In reply to a question by C. H. Turner, a mechanical executive asserted that rubber roller passes fuzz, not to the paper traveling through the press, but forces it back to the fountain.

Brass Plates for Color Work

Charles J. Conrad, Photo-engraving Superintendent of the New Orleans *Times-Picayune*, requested Louis P. Hess, Engraving Superintendent of the Memphis (Tenn.) *Commercial-Appeal*, to describe the 11 point brass used in his plant for color work. The brass plates prevent shrinkage, do not spread under molding pressure and provide a means of obtaining registration in color work.

Gauging Zinc by Thousandths

Some of the executives present stated that they do not order zinc by gauge number, such as 16-gauge for instance but prefer ordering it by thousandths specification. Louis P. Hess stated he specifies 0.065 in. Another executive stated his orders called for plates not less than 0.065 in. thick nor more than 0 068 in. thick.

Topic Leader Conrad requested J. M. Fant, Imperial Type Metal Co., Atlanta, Ga., to inform the executives present as to the gauge of zinc supplied by his company. Mr. Fant stated it was supplied in sheets measuring 0.065 in. plus or minus 0.001 in.

Two-Height Steel Base

When the discussion got around to cut mounting methods, Fred Connell described the Mills combination two-height steel base which is constructed in small blocks or units so that one side can be used for mounting shell casts stereos and the other side may be used for zinc etchings. All form elements in Mr. Connell's plant are mounted type high.

Making Rush Cuts

Mr. Conrad described the process of improving time required for making rush cuts. By means of cellophane he was able to produce a rush cut in 17½ min. Negatives coming from strip-film camera are soaking wet. Usually, 10 or 12 min. are required for drying them thoroughly so as to print on zinc. Otherwise the sensitive solution on the zinc is ruined. Cellophane laid on top of the wet negative keeps the negative from touching the sensitive coated zinc plate. The water on the negative cannot touch the plate because the cellophane covers the entire negative. Mr. Conrad stated he makes the negative with a large dot so as to be able to etch in one bite after printing. The schedule of time is as follows:

Operator	5½ min.
Stripper	1 min.
Printer	6 min.
Etcher	2 min.
Washing and Finishing	3 min.
Total time	17½ min.

W. A. Carns, Mechanical Superintendent of the Birmingham News *and* Age-Herald, *appears at extreme left; in the center is George W. Holloway, Composing Room Superintendent of the Nashville* (Tenn.) Banner, *while at right is shown Mechanical Superintendent W. B. Sandlin of the Miami* (Fla.) Herald. *All of these geatlemen had a hand in planning and arranging for the first Southern Mechanical Conference sponsored by the Southern Newspaper Publishers Association which was held in Birmingham, Ala., September 20-21, at Hotel Tutwiler.*

Left to right: W. L. Knighton, Pressroom Superintendent, Birmingham, (*Ala.*) News *and* Age-Herald, *presided during the pressroom discussions at the first Southern Mechanical Conference held in Birmingham, Ala., September 20-21; W. B. Astor, jr., Stereotype Superintendent of the Memphis* (*Tenn.*) Commercial-Appeal, *conducted the stereotyping section of the program; Charles J. Conrad, Engraving Superintendent of the New Orleans* Times-Picayune, *conducted the photo-engraving section of the program.*

Strip Film and Its Use

In discussing the topic "Strip Film and Its Use," Mr. Conrad presented some comparative figures on cost of materials used in operating wet and dry plate cameras for a period extending from May 20, 1936 to August 17, 1937.

Mr. Conrad stated his dry plate camera is operated by two operators. He also uses three wet plate cameras operated by one operator each, plus one operator at the trough to cut and fix negatives. According to Mr. Conrad's computation, the work to be made with dry plate equipment during this period would be $5755 while the equivalent amount of work made during the same period by wet plate method would be $6086.58, or a difference of $331.58.

One-Man Engraving Plants

Under the topic "What about one-man plants?" considerable discussion developed. There seemed to be some confusion as to the exact meaning of and what constitutes a one-man photo-engraving plant for newspaper use. There was no complete agreement among some of the executives as to their practicability. On the other hand, a number who are using one-man plants were invited to the speakers' platform, all of whom spoke in highest praise of their utility. Among these were H. L. Leyland, Superintendent of the Ft. Myers (Fla.) *News-Press*, and Guy Aycock of the Chattanooga (Tenn.) *News*.

Mr. Aycock stated the Chattanooga *News* equipment represented an expenditure of approximately $1500. For one year's period the engravings were produced at a cost of 5c per sq. in. From 4 to 6 flats per day are turned out.

In the discussion it developed that most of the executives had in mind one-man photo-engraving plants costing from $400 to $1500 each.

Mr. Leyland and a number of others using the lower priced plants spoke favorably of their investments and stated they are able to operate them successfully and economically.

It seems to be the consensus of opinion that the small engraving plants are the means of developing the art among newspapers who would not otherwise be able to improve the appearance of their papers.

Tuesday Morning Session

After roll call conducted by Cranston Williams, Chairman Fred Forstall called upon

Exhibitors at S. N. P. A. Mechanical Conference

In addition to manufacturer and supplier representation by approximately seventy persons, some companies carried exhibits at the first mechanical conference of the Southern Newspaper Publishers Association.

Among the exhibitors were: Federated Metals, St. Louis; Matrix Contrast Corporation, New York; Certified Dry Mat Corporation, New York; Linograph Corporation, Davenport, Ia.; Ludlow Typograph Company, Chicago; Mergenthaler Linotype Company, Brooklyn; Monomelt Company, Inc., Minneapolis; New England Newspaper Supply Company, Worcester, Mass.; Rapid Roller Company, Chicago, and H. B. Rouse & Company, Chicago.

F. S. Richardson, Mechanical Superintendent of the Vicksburg (Miss.) *Post*, to discuss Teletypesetter operation in his plant. Mr. Richardson described in some detail just how

George M. Stone, Composing Room Superintendent, Atlanta (Ga.) Constitution, *caught by photographer in happy frame of mind. Mr. Stone served as topic leader for composing room topics during both days of the first Southern Mechanical Conference held in Birmingham, Ala.*

the tape perforating and keyboard operating units function.

He stated the perforating unit has a 900-per-min. character operating capacity. The Linotype to which an operating unit is attached produces 3200 to 3400 lines of 7 pt. type in 8 hours.

Sometimes the errors are bad on account of the human element. The Teletypesetter, however, doesn't make the errors nor does it cause transpositions. He stated that the grief experienced by machinists in catering to the wants of operators has been eliminated. It is advisable to keep plenty of matrices in the magazines. The machine runs as smoothly at 8 lines per minute as it would if it were operated at 6 lines per minute. In order to get maximum production the machine must be maintained in fine mechanical condition. The Teletypesetter-operated machine does not ruin as many matrices as under manual operation.

Mr. Richardson stated his tape operator produces the equivalent of 16 or 17 galleys of 7 pt. type in 8 hours.

J. Luther Wright of the West Palm Beach (Fla.) *Post* and *Times*, wanted to know how a tight line would be straightened out in case the machine had been stopped by one. Mr. Richardson stated the machinist cleared it up in the usual manner and then turned back the tape for resetting, or the error caused by removing a matrix could be caught in the proof.

In reply to a question asked by Henry C. Page of the Knoxville (Tenn.) *Journal*, Mr. Richardson stated that keeping one Linotype busy is about all that can be accomplished by one operator in eight hours.

Fred Forstall, Mechanical Superintendent of the New Orleans *Times-Picayune* and *States*, wanted to know how long would be required to switch from tape to manual operation of the keyboard. Mr. Richardson stated this could be accomplished by merely pressing a button. The operating unit can be removed from the machine in two minutes.

Mr. Richardson concluded the discussion by stating that if you get good, clean tape you will get good type. If the tape operator punches "dirty" tape you will get dirty proofs.

Horace Hall, Publisher of the Dothan (Ala.) *Eagle*, called upon Paul Porter, Composing Room Foreman, also of the *Eagle*, to discuss the Teletypesetter installation in that plant. Mr. Porter spoke highly of the Teletypesetter and stated an average of 360 lines per hour, 7 pt., 12 ems, was being secured from each unit. There are two units in the *Eagle* plant.

C. H. Griffith, Vice President of the Mergenthaler Linotype Co., described an automatic magazine shift which had been applied to Linotypes using the Teletypesetter in the plant of the Edinburgh *Scotsman* for the composition of complicated markets from two magazines.

The Semagraph

John P. White, Mechanical Superintendent of the Charlotte (N. C.) *Observer*, described the function and operation of the Semagraph so far as he is permitted at the present time. In Mr. White's opinion, an automatic typesetting machine is and will be good only for straight-matter composition. The development and purpose of automatic typesetting means is not so much to displace operators as it is to care for increased production. In the *Observer* plant two experimental machines are being used every day. Production averages 200 lines per hour per unit. If copy is right, Semagraph operation will be right. Ninety-nine per cent of errors are made in the copy unit by the operator. Standard matrices of the non-unit type are used in the Semagraph. An attachment is being developed which will reset the line-counting arrangement in case a character doesn't drop from the magazine. From 10 to 15 minutes are required to remove a Semagraph unit from the machine and replace with keyboard for manual operation.

Copy as Long as a "Well Rope"

Leven Deputy, Mechanical Superintendent of the Dallas (Tex.) *News-Journal*, asked about length of time of automatic operation of the machine. Mr. White stated enough copy could be hung on the machine to operate it continuously for one hour without replenishment.

"A strip of copy as long as a well rope," interposed Cranston Williams, Secretary--Manager of the S.N.P.A.

Mr. White stated a transmitter will be completed soon by means of which copy can be sent over the wire. He doesn't know what the cost of Semagraph equipment will be—that is to be determined later. However, 20 units are now ready waiting for completion of the transmitter units so the purchasers can have wire service to go with it.

In response to a query by Leven Deputy, Mr. White said, since there are 128 characters it would be possible to eliminate pi stackers.

Display Matrix Auxiliary Alignment

Presiding Officer Fred Forstall next brought up for consideration a resolution which had been signed by all members of the Committee on Arrangements. He stated the printing trade is confronted with a problem in the matter of two-letter 18 pt. and 24 pt. display faces for use in Linotypes and Intertypes. He stated that the development of the two-letter display face matrices is a marvelous thing. Its use cuts down magazine changes and provides a flexibility which it has not been possible to secure before the introduction of the matrices. However, at the present time the matrices are not interchangeable for practical purposes in alignment. Mr. Forstall stated the committee feels that unless the alignments are made alike there will be grief ahead for the publisher.

Mr. Forstall then read the resolution which had been prepared and signed by the committee. The resolution is as follows:

The Resolution

"Whereas, it has been brought to the attention of the Southern Newspaper Mechanical Conference that mats of the Intertype Corporation and of the Mergenthaler Linotype Company in the 18-point and 24-point, two-letter designs do not cast properly and interchangeably on the machines of both companies, and this is proving to be expensive

(Continued on Page 26)

Screen of Ancient Vintage

H. L. Leyland, Superintendent of the Ft. Myers (Fla.) News-Press, *while speaking of the successful use and operation of his One-Man Photoengraving Plant, at the Southern Newspaper Mechanical Conference, held in the Tutwiler Hotel in Birmingham, Ala., Sept. 20, stated that in assembling the equipment, he acquired a large size screen. The screen consisted of a film interposed between two glass plates. The assembly was held together by bookbinders' tape.*

Mr. Leyland said the screen as it stood was too large for his use, and he desired to have it cut down to his camera size. After some investigation he was informed that a gentleman in Detroit could do the cutting down for him. However, the Detroit man advised Mr. Leyland that it would be best to send it direct to a screen manufacturer. Correspondence with the screen manufacturer developed the fact that Mr. Leyland's screen had been made in 1893 and on account of its vintage, could he have it for a museum piece? Mr. Leyland did not say what disposition he made of the request.

Simple, *isn't it?*

. . . . . Columbus asked the Queen

* * as he showed her the famous egg trick. Just because we've shouted so long and so loudly about saving 40 percent (or more) in fuel, don't overlook simplicity-in-design, for that is money-in-your-pocket, too.

The 44 inch stereo pot above melts 10,000 lbs. of metal and is designed for use with two pumps. It illustrates the important fact that Kemp simplicity is the key to long-run economy and freedom from maintenance expense, that ***Kemp Immersion Melting Stereo Pots*** are built for dependable day in and day out performance.

Simple, too, is the matter of getting complete information. Just ask your secretary to write a note to . . . . **The C. M. Kemp Mfg. Co., 405 East Oliver St., Baltimore, Md.**

KEMP of BALTIMORE

Register

(*Continued from Page 15*)

color should be fitted to it and if moves are made in the key form this becomes more difficult.

Two-Color Press Sequence

On the two-color press a favorite sequence is to run the lighter color first since if the darker color is printed first some of it may be picked up by the lighter color. The register is more important between red and blue than between red and yellow in process work, so in three-color work red and blue may well be run on a two-color and yellow on a single press. In four-color work red and blue and yellow and black may be coupled.

Wood-Mounted Plates

The system of registering plates given above may also be used with a form of plates on wood bases. Each move should be measured before the move is made with the thickness of lead and reglet for a gauge if one needs a gauge to make an exact change in location of a plate.

Precautions On Initial Run

Numerous precautions should be taken when a registering job is to be printed on a press on which the pressman has not previously worked but after he has made all necessary adjustments, following register jobs will not need the same press preparation.

The cylinder is packed even with the bearers and say fifty impressions pulled on the drawsheet, with the rollers up, to stretch it, after which it is tightened on the reel if not taut.

The press is next inked up and about a dozen prints made, after press is up to speed, on the drawsheet to test the register between the bed and the cylinder. The plungers should be properly set when making this test. The form should be inked lightly.

If all lines and dots print in register, this important step in the test for register ends satisfactorily. If there is a variation and the press has seen considerable service, it is well to check up on the bed motion, especially if the variation is a lead or more. It may be necessary to shim the racks into better mesh with the driving gear. The register rack is removed when making this test.

The register rack should be set so that the bed carries the cylinder along, else there will be a loss of register from the front to back edge of the sheet.

After setting the register rack or lowering the cylinder, the intermediate gear should be readjusted.

The springs that lift the cylinder should be strong enough and have equal strength or register will vary at the front edge of the sheet. The spring of the gripper rod should not be too strong as this may affect register at the front edge.

Feedboard Adjustment

After the cylinder is packed, the feedboard is adjusted by laying a straightedge on the feedboard and over the cylinder. The feedboard is then adjusted so that the straightedge just touches the drawsheet. The guide rests should clear the packing not more than two sheets of the paper being printed, should be suited to the curvature of the cylinder and be placed about one-sixth of the length of the sheet from its ends. One or two extra guide rests besides the two under the guides may be used to support the sheet. The feedboard must be adjusted so that its edge is parallel with the top of the cylinder.

Condition of the Guides

On the two-revolution press the guides should lift as late as possible and the face of the guide must be smooth else it may disturb the sheet and interfere with the grippers. Any rough points on the face of the guide may be taken off by rubbing up and down with oiled fine emery cloth. The faces of the guides must be square so that the edge of the sheet touches all the way across the face and not just at a point in the face. The guides should rest lightly on the rests as too much weight is likely to bend the tongues so that when the guides rise, the tongues also rise and move the sheet. The guards on the face of the guide should be set to hold the edge of the sheet closely to the guide rests. In register work the guides should be in the same position each time the sheet is printed.

(*To be Continued*)

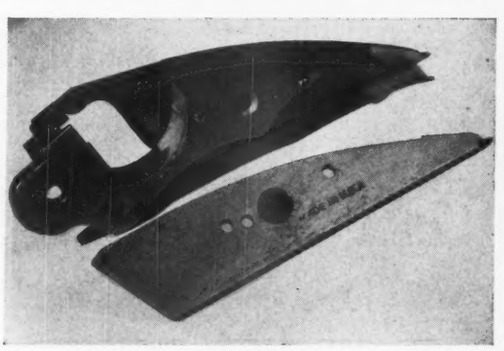
NEW DIVISION MANAGER

Announcement has been made that A. R. Johnson has been appointed Manager of the Merchandising Sales Division of Cutler-Hammer, Inc. Mr. Johnson will be in charge of all distributor activity.

Anti-Clog Assembler Chute Rail

A gap sometimes is present between the upper ends of Linotype assembler chute rail springs and the matrix delivery belt. The gap is caused, as a rule, by the wear taking place in the belt or to the application of a new belt of a varying thickness from that of the one which is being replaced. Thin matrices catch under the spring rails and several matrices may clog the passage before the operator is aware of the condition.

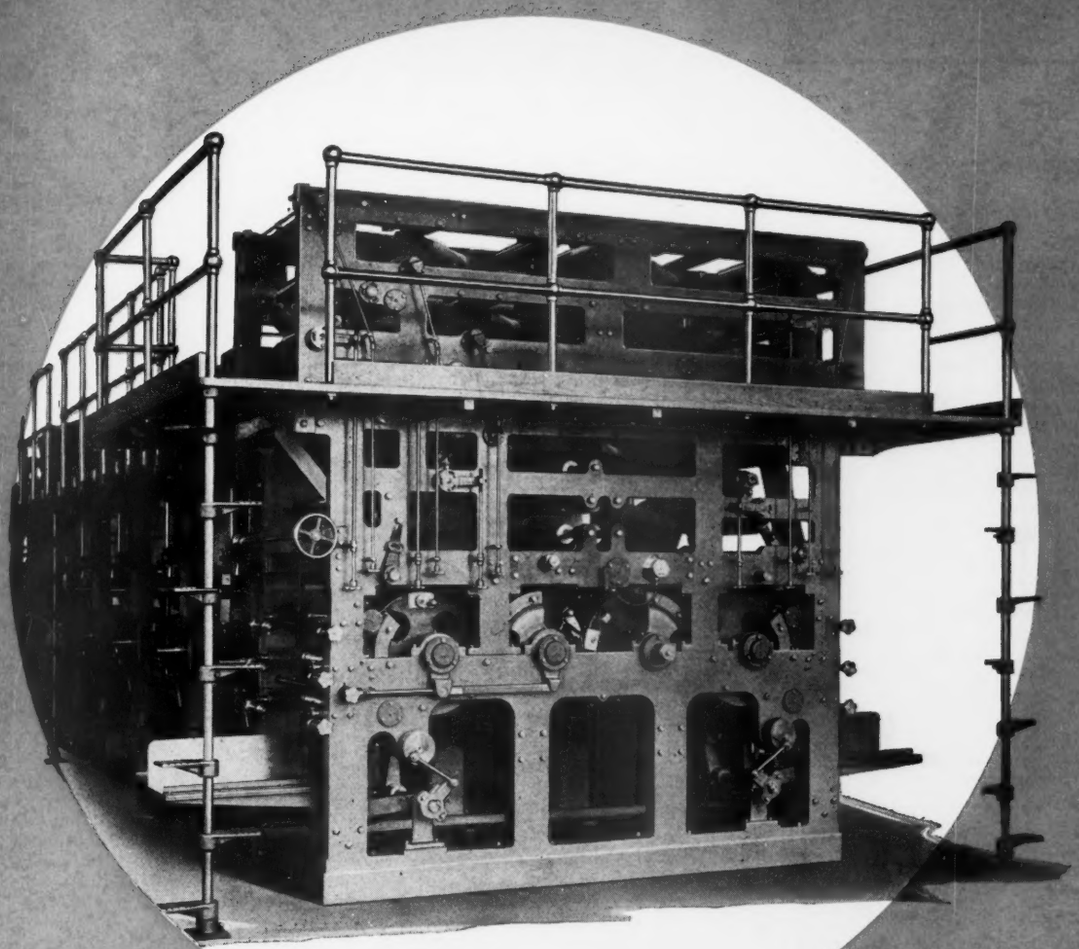
A modified form of one-piece assembler chute spring rail has been devised by Jas. F. Hubbard, Chief Composing Room Machinist of the Boston Herald-Traveler. *It is designed*



with a split section at the upper end to permit fitting the tongue closely to the matrix delivery belt. This eliminates possibility of thin matrices wedging between rail and belt.

The spring rail or plate is made from phosphor bronze stock 0.017 in. thick and is shaped substantially as shown in the illustration. The plate is fixed in position and kept from slipping by two 1/8 in. lugs which fit into corresponding holes drilled in the front and back rail side plates. A slot is cut into the chute block to a depth of about 9/16 in. to accommodate the tongue. The purpose of the lower tongue is to provide the spring tension necessary for holding the upper section of the spring rail firmly against the chute rails.

P.S.—Watch the abutment of the lower left part of the assembler chute rail side plates opposite the assembling elevator detaining plates. If the detaining plates project above the chute rail side plates, matrices will be cuffed by the detaining plates and wear down the matrix lugs. Usually, the front rail side plate wears out first. Renewing the side plates will save matrix renewal expense.



High-Speed Multicolor Gravure

The accompanying picture shows an end view of a recent Cottrell rotogravure press construction. This press prints two colors first side and four colors second side, at 15,000 cylinder revolutions an hour. It is furnished with a magazine-type folder. All signatures are delivered in a patented packer-type delivery —in four 8's, two 16's, or two 20's.

Accurate register is insured by a patented Cottrell method, never before used in rotogravure printing, which is uniformly accurate and effects large savings in paper waste due to faulty register.

Cottrell Rotogravure Presses are strongly built throughout for continuous high-speed operation—with a background of long experience in the building of rotary presses. Full particulars will be furnished on request.

C. B. Cottrell & Sons Co., Westerly, R. I.

NEW YORK: 25 East 26th St. • CHICAGO: 332 South Michigan Ave.
CLAYBOURN DIVISION: 3713 North Humboldt Ave., MILWAUKEE, WIS.
SMYTH-HORNE, Ltd., 1-3, Baldwins Pl., Gray's Inn Road, LONDON, E.C.1

COTTRELL

S. N. P. A.

(*Continued from Page 22*)

and highly inconvenient to publishers, therefore

"Be It Resolved, that the Southern Newspaper Mechanical Conference feels that the responsible executives of the Intertype Corporation and of the Mergenthaler Linotype Company should arrange a conference about this problem and bring about a solution which will be satisfactory to both companies and will result in giving to publishers a standard uniform alignment in both matrix and mold on the two sizes above mentioned.

"Conference Committee:

"Frederick K. Forstall, W. A. Carns, George W. Holloway, I. J. Gardner, John P. White, W. B. Sandlin and T. C. McLemore."

The resolution was concurred in unanimously by the mechanical executives present.

Both C. H. Griffith, Vice President of the Mergenthaler Linotype Company and Herman Freund, Chief Engineer of the Intertype Corporation, both affirmed that the interests of the publishers are paramount and said they would cooperate to the fullest extent in reaching an agreeable decision with respect to the difference in letter alignment.

Conference Attendance

Cranston Williams announced a total conference attendance of over 260 persons, consisting of mechanical executives, guests and trade representatives.

Southern Pine Newsprint

Tear sheets of the Savannah (Ga.) *Evening Press* were distributed. The paper was made from Southern pine newsprint in the Pulp and Paper Laboratory at Savannah. The paper contained 20% semi-bleached sulphite pulp and 80% groundwood.

Cranston Williams discussed at some length the development of newsprint from Southern pine by Dr. Herty. A mill located at Lufkin, Texas, of two-machine capacity, will be ready for operation in 1939. The product will be available to southwest publishers in a limited group.

Press Packings

After Mr. Williams concluded his talk on Southern newsprint development, the meeting was turned over to Topic Leader W. L. Knighton. The pressroom section of the program immediately took up "Type of packing used on impression cylinders to obtain best results."

E. A. Van Norden, Atlanta (Ga.) *Georgian-American* Pressroom Foreman; Frank Bivins, Pressroom Foreman of the Birmingham (Ala.) *Post;* Guy Aycock, Chattanooga (Tenn.) *News* Pressroom Foreman; H. E. Bennett of Miami (Fla.) *Herald;* G. A. Whitman of the Columbus (Ga.) *Ledger-Enquirer;* Charles Sullivan, Pressroom Superintendent of the Memphis (Tenn.) *Commercial-Appeal;* Leven Deputy of the Dallas (Texas) *News-Journal*, Peter Prassinos, Pressroom Superintendent of the New Orleans *Times-Picayune*, and F. A. White of the Augusta (Ga.) *Chronicle*, all discussed their press packings and how they were obtaining results.

F. A. White of the Augusta (Ga.) *Chronicle*, stated he operates three Hoe units and employs a system of changing blankets on the press every 30 days. He switches them from one unit to another to obtain uniform beat-down. He uses a muslin liner, 0.005 in. thick, to build up to pitch line. Some blankets bolster more than others. He uses an electric burner to burn down bolsters and finishes off the spots with sandpaper. He states he adjusts for 12 pt. contact; 20 pts. leeway, which gives 8 pts. leeway to go down.

Adjournment to Group Meetings

Presiding Officer Forstall stated the general meeting would now be broken up into unit or group meetings. Executives interested in a certain department of the newspaper could attend the departmental meeting of his choice.

Tuesday Afternoon Session

At the beginning of the Tuesday afternoon session, Cranston Williams announced that the Committee on Arrangements for the Southern Mechanical Conference for the ensuing year would be W. A. Carns, Mechanical Superintendent of the Birmingham (Ala.) *News* and *Age-Herald*. Fred Forstall, Presiding Officer of the present conference, would automatically remain a committee member for one year.

Humidifiers and Their Use

Topic Leader Knighton then brought up for discussion "Humidifiers and Their Use." Superintendent C. B. Capps of the Charlotte (N.C.) *News* stated that as a result of the use of a humidifying system in his plant rust does not gather on the machinery.

Fred Forstall stated that if steam pet cocks were not used in the *Times-Picayune* plant, rust would gather on the machinery anyway. The only reason for using the pet cocks for supplying moisture to the paper is that in the winter time the steam heat dries out the atmosphere.

Thomas P. Cantwell, Mechanical Superintendent of the Greenville (S.C.) *News-Piedmont*, stated rust bothers his plant but he doesn't know what to do about it.

John P. White, Mechanical Superintendent of the Charlotte (N.C.) *Observer*, says the humidifier installation in the *Observer* plant has been entirely justified in eliminating static and flying ink.

"Offset, Strike-Through, Show-Through"

Mr. Knighton took up "Definitions and the means of eliminating the three greater evils in newspaper printing, namely: Offset, Strike-Through and Show-Through." The definitions as adopted at the 1936 Chicago A.N.P.A. Mechanical Conference were read.

C. H. Turner, Pressroom Superintendent of the Atlanta (Ga.) *Constitution*, asserted some of these difficulties are up to the paper-maker.

An executive stated he carries more impression (12 pts.) and cuts down the ink on the first impression to reduce offset on the second impression cylinder. Offset can be worked out to some extent by getting both cylinders to run in time. The tension should be watched to obtain positive travel of the web from the first to the second impression cylinder.

When is it Profitable to Print Comics?

In answer to the question "Is it profitable for a paper under 50,000 circulation to print its own comics?" T. C. McLemore, Mechanical Superintendent of the Mobile (Ala.) *Press-Register*, stated that he is printing 8-page comics on a Goss decker-type press in three colors and black. Sunday circulation runs from 46,000 to 47,000 copies. Three days' stereotyping time is required. Plates are sent to the pressroom first thing Monday morning. Rubber rollers and semi-hard packing are used. Mr. McLemore stated production costs are as follows: Paper, ink and labor, $4.93 per thousand copies. This figure, however, does not include electrical energy. A quotation from an outside firm was $6.80 per thousand copies. The savings to the *Press-Register* are about $1 per thousand copies.

George M. Martin, Production Manager of the Louisville *Courier-Journal* and *Times*, brought before the meeting a problem. He stated the plates in his plant were approximately 0.006 in. oversize and asked for an explanation as to how it would be possible to reduce the plate thickness to 7/16 in.

Peter Prassinos (New Orleans *Times-Picayune*) reported he is using 0.146 two-piece packing on his Hoe presses consisting of 1/12 T. B. and 1/16 Vulcan. He asserted the plate, instead of the blanket, should drive the sheet. Mr. Prassinos ventured to suggest that since offset is caused by the second impression blanket there might be some way to devise a driven wiper roller which would contact the second impression cylinder to prevent offset.

Control of Shrinkage

Topic Leader W. B. Astor, jr., assumed charge of the meeting. He called upon D. T. Stephenson of the Burgess Cellulose Company to discuss mat shrinkage. Mr. Stephenson spoke mostly "off the record."* Among other things, however, he stated that if it were possible in the manufacture of dry mats to get fibre in the beat to lay lengthwise then it would be possible to control absolutely the cross-wise shrinkage in the mat.

Fred Forstall asked the mechanical executives present if it wouldn't be better for the publisher to get paid for full national lineage rather than to shrink the copy to make a saving on newsprint. It was the consensus of opinion among those present that it would be better to have the money in the publisher's pocket rather than in the papermaker's pocket.

Composing Room Details

Under Composing Room Topics, George Stone was called upon to preside. George Halloway asserted that it was the duty of mechanical executives in choosing machinery to make the selections to give the publisher the best operation. He felt, in his case, that his judgment had resulted in a saving of $200 per week in the composing room payroll.

Under the topic of Composing Room Lighting, W. A. Carns described a new installation of hooded daylight lamps in the Birmingham *News* and *Age-Herald* composing room. The men are well satisfied and the lighting units are very efficient. While not essential to the *News* and *Age-Herald* installation, the new units can be used for color matching purposes.

George Stone discussed low leaders. He said that leaders had been eliminated in the *Constitution*. W. B. Astor, jr., of the Memphis (Tenn.) *Commercial-Appeal*, says that on his paper the stereotypers paste out leaders on the back of the mat. W. B. Sandlin, Mechanical Superintendent of the Miami (Fla.) *Herald*, stated all leaders had been discontinued.

Shrinkage Allowances

Under the topic of shrinkage allowances in the composing room, Leven Deputy stated in his plant it is customary to allow a nonpareil (6 pts.) oversize setting for each 4 in. of display space. Others stated the allowance would vary according to shrinkage of the particular brand of mat, due to amount of moisture percentage, in use in that stereotype department.

W. B. Sandlin wanted to know if it would be possible for the publishers to "put pressure" on national advertisers so that oversize shrinkage could be put in the plates. He had in mind some standardization plan to automatically provide for shrinkage by putting it in the plate.

Resolutions

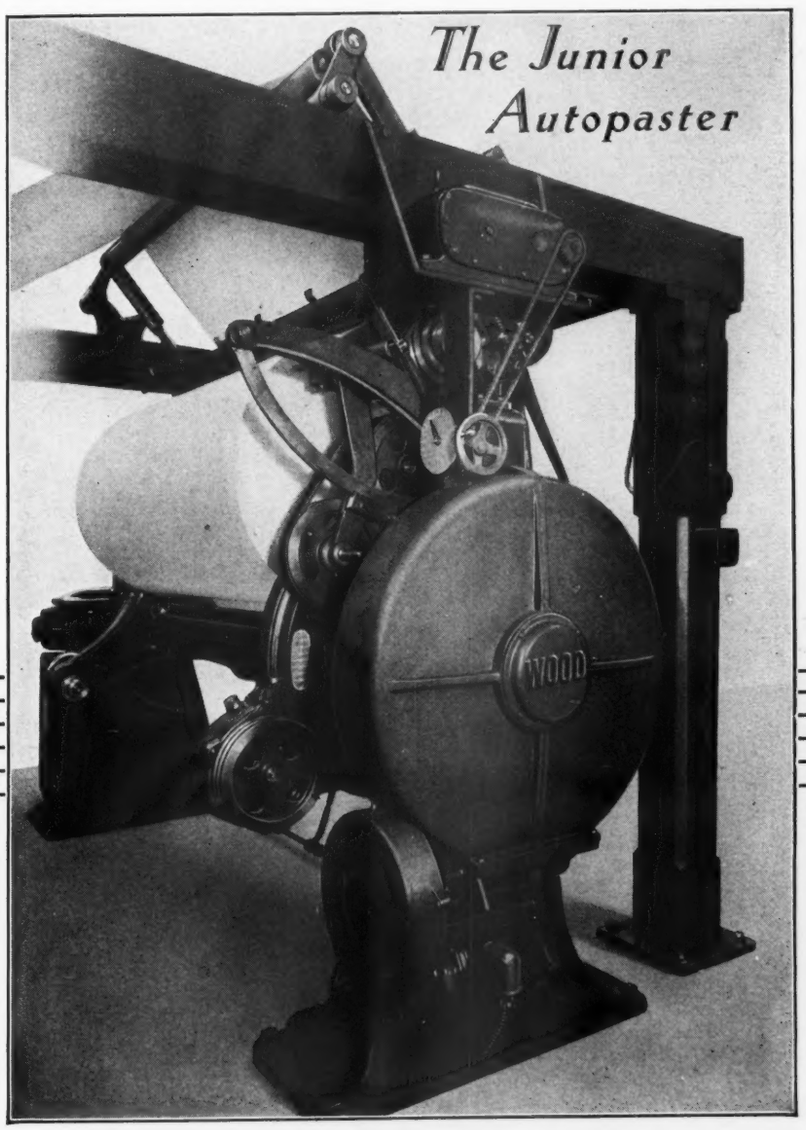
Before adjournment of the Conference, a number of resolutions were passed and carried unanimously. One resolution expressed appreciation to the publisher members of the S.N.P.A.; Cranston Williams, Secretary-Manager of the S.N.P.A., and the Committee on Arrangements for the very successful conference. Another resolution expressed appreciation and thanks to the manufacturers and suppliers for their hearty cooperation in making the first conference a success.

**Printing* Equipment *Engineer* would like to repeat Mr. Stephenson's remarks. We are constrained from doing so by reason of the condition adopted through which any speaker's remarks would not be recorded, should he not wish to be quoted.

Presenting the

JUNIOR AUTOPASTER

The Junior Autopaster, like our Full-Automatic Autopaster, makes its splices at the full running speed of the press. Its cost, however, is considerably less. Complete information will be furnished on request.



WOOD NEWSPAPER MACHINERY CORPORATION
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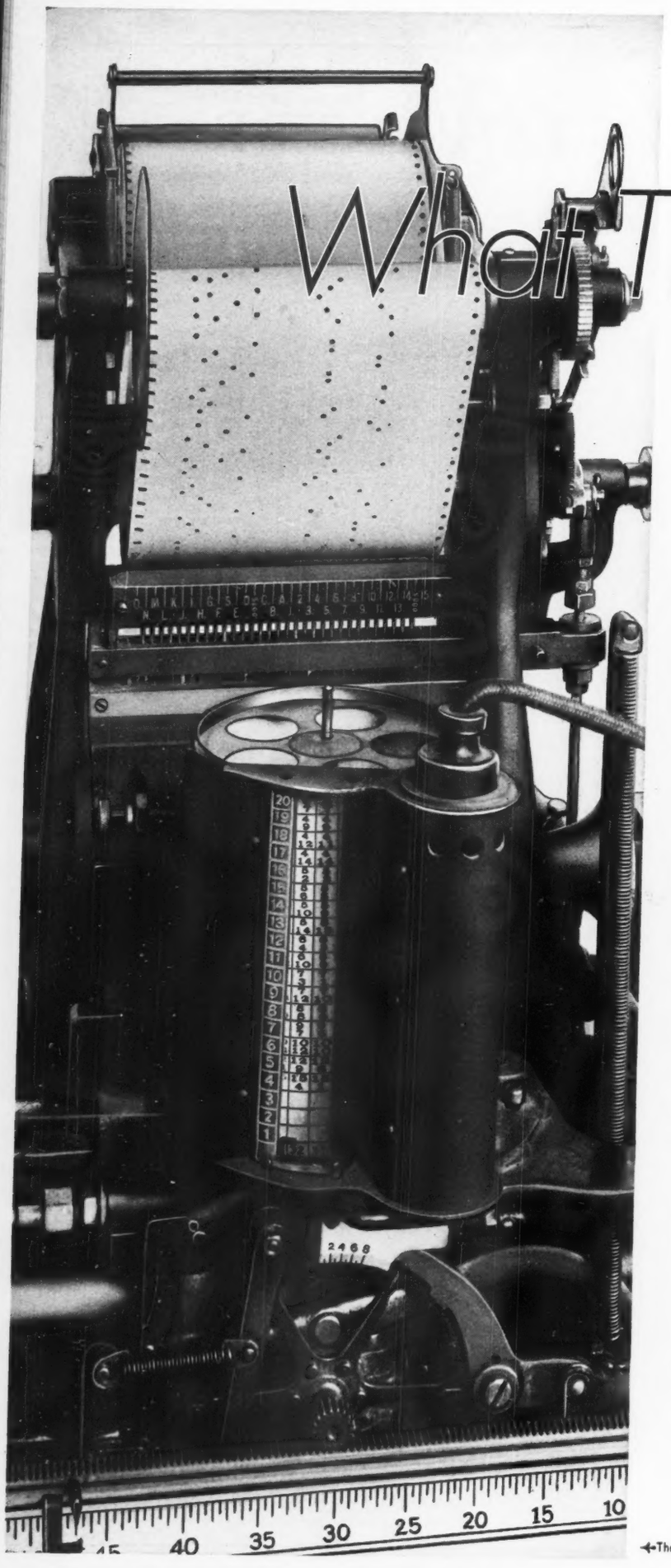


What Three Men W

the BUYER OF PRINTING

The kind of printing which will help create markets for goods or services

The MONOTYPE TYPESETTING MACHINE sets type in justified lines in all sizes from 4 to 18 point, and can be equipped to also make type, quads and spaces from 4 to 36 point, and strip rules, leads and slugs from 1½ to 12 point, cut to any desired measure.

←The MONOTYPE KEYBOARD TOWER

Wanted . . . THEY SECURED THROUGH THE MONOTYPE

the PRINTER PROPRIETOR

To build a profitable business by meeting the demands of his clients

Let us tell you how you can use a Monotype to advantage in your plant. No obligation if you ask.

Lanston Monotype Machine Company
Twenty-fourth at Locust St., Philadelphia

the MAN WHO PRODUCES

To turn out good printing economically and meet promises for delivery

This advertisement composed in Monotype Twentieth Century Family

Synthetic Roller Technique

By J. C. DUNN*

Behavior of synthetic rollers under practical conditions—Rollers should be set to proper position to refine and distribute the ink.

CHEMICAL research during recent years has brought forth many notable achievements. Prominent among these are several new synthetic materials, rubber-like in general characteristics, but with special properties which make them interesting in their application to the printing industry.

The requirements of the several different printing processes are sufficiently varied, mechanically and otherwise, to preclude the possibility of one all-purpose roller. Specifically, the need for different degrees of softness makes it necessary to vary the composition.

There are several types of synthetics which have become well known to printers. Others are being developed. These materials are used singly and in combination. Mixtures of rubber and synthetics have been tried, but reports do not justify this compromise. Properly designed and formulated synthetic compounds have many qualities which make them suitable for inking roller use. They are stable, not subject to rapid oxidation, are highly resistant to oils, solvents and dryers, uneffected by seasonal and temperature changes. They can be compounded to produce the proper degree of softness without swelling. The manufacturing technique is similar to rubber. Synthetics have broad curing ranges.

Synthetic rollers are not damaged by high temperatures, frictional heat or high relative humidity. When mechanical operations require softness, absence of swelling or shrinking they function properly. Where quality printing depends on a constant, uniform and uninterrupted supply of ink, synthetic rollers properly compounded, expertly built and intelligently handled are proving their value.

Chemists well grounded by training and experience in the art of compounding rubber plastics, have developed a new technique in adapting synthetics to inking roller use.

How do synthetic rollers operate and how long will they last? This is the first interest of every printer. Emphatically they are not a cure-all or panacea for all operating problems, nor will they return a fair value to the purchaser unless the pressman is willing to make some definite and intelligent contribution to their use. The successful use of synthetic rollers on typographic presses depends much on the skill of the pressman. He must be willing to apply himself and contribute something in the care and use.

First of all, setting becomes an important function. It is practically impossible to prescribe rigid rules for roller-setting. They should be set to just the proper degree necessary to thoroughly refine and distribute the ink. Too much stress cannot be placed on the necessity of forming the habit of setting rollers lightly. Pressmen must disregard age-old methods of setting composition and rubber rollers if good printing and long roller life are wanted.

Will synthetic rollers print halftones? Certainly the y will. Will rules cut the surface of synthetic rollers? Yes, unless reasonable judgment is used in setting. Unusually long runs on rule forms without injury to the rollers are a matter of record. If the rollers are set too hard, or if especially sharp rules are used, then do not expect too much. After all, this is a matter of judgment.

Do inks affect synthetic rollers? Not ordinarily. This question of ink will sooner or later have to be settled by cooperation, rather than independent action. Repeatedly consecutive runs have been made employing different inks without affecting rollers and then a specially prepared ink will cause trouble. This trouble may take the form of piling up or forming a scum, or a glaze on the surface of the roller. If a scum, cuts may fill up. If a glaze, insufficient ink will be carried. This condition is hard to correct except by reconditioning the rollers involved.

The viscosity of inks may be greatly varied. Softer, or less viscous inks may be used. It is also possible to use very stiff inks as in printing on cellophane and similar materials.

Admittedly, the principal objection to synthetic rollers is the washing problem. The rollers carry ink by surface absorption. It is, therefore, imperative that thorough and complete washing be carried out. Special attention to this operation is essential. No amount of surface rubbing will remove the vehicle and pigment. A soaking or swabbing procedure should be employed. The use of abrasive cloth is not recommended. This ruins the surface and unsatisfactory results usually follow. The practice should be discouraged.

Washing solutions are being developed and this problem is just about solved. Low volatile washes should be followed with a solution which evaporates more quickly. For example, acetone or gasoline alone or following a kerosene wash.

When two surfaces run together some wear is inevitable. So it is with synthetic rollers, but they can be quickly, perfectly and cheaply reconditioned. It is possible to polish off surface abrasions and column rule cuts and bring out a smooth, finely textured surface equal in every respect to the original finish. This operation costs a fraction of the original outlay.

*Vulcan Proofing Company, Brooklyn, N. Y. Technical abstract of paper delivered before Graphic Arts Technical Conference, May, 1937, in New York.

COVER SAMPLE BOOK

The Hammermill Paper Company, Erie, Pa., has issued a new sample book of its cover papers. The book is 6 in. by 9 in. in size. It is divided into five sections, each showing the different colors in that particular kind of cover stock. The pages are die cut and indexed for convenience of the user. There are 299 different items of colors, weights and finishes in the 46 pages.

EXPRESS TRAFFIC INCREASES

There is considerable economic significance in the fact that express traffic, in July, showed an increase of 5.26 per cent over the same month of 1936, according to K. N. Merritt, general sales manager of Railway Express Agency. Expansion in the use of expedited transportation usually anticipates improvement in public buying and larger merchandise sales.

With the business moved by the Express Agency in July estimated as 9,757,901 shipments, the increase recorded totals not far from half a million more than last year.

COLOR

METALLIC INKS FIT INTO MANY COLOR MOODS, BEING NEUTRAL IN CHARACTER . . . THE INFORMATION ON THE NEXT PAGE WILL BE VALUABLE IN SELECTING METALLIC INKS.

BRIGHTER PRINTING PROSPECTS WITH

GOLD AND SILVER INKS

PRINTING with metallic inks is an art. Perhaps in no other printing process is the skill and craftsmanship of the pressman so important. The Products Development Laboratories of IPI have devoted a good part of their research program to the development of gold and silver inks for metallic printing. In the last few years definite improvement has been made in the drying factor of this type of ink. We believe IPI metallic inks are outstanding in this respect, because of a radical change in formulating the vehicle. However, certain important factors must be observed to get the best results in metallic ink printing.

IMPORTANT FACTORS IN PRINTING GOLD AND SILVER INKS

PAPER Some papers are better suited to metallic printing than others. Generally speaking, coated papers designed for metallic ink printing give excellent results with one impression of gold or silver.

Paper merchants are among the first to admit the importance of paper selection in metallic ink printing. Several of them have issued invaluable manuals on printing gold and silver inks on various types of paper.

The first thing the printer must do if he expects first class results is to select his paper with the advice of a good paper merchant.

DRYING Definite improvement has been made recently in the drying qualities of IPI metallic inks and they are outstanding in this respect. Nevertheless, the paper has an important bearing on the drying of metallic inks.

BASES FOR SILVER & GOLD Bases for silver ink may be black or colored inks. For gold on uncoated papers, two impressions of gold ink are recommended. Whether or not one impression will give satisfactory results is dependent on, first, the paper you are planning to use, and second, the degree of brightness you require in your finished result.

GOLD INK FORMULATION Gold ink should be mixed just before the job is ready to run, and just the amount required for the job. If there is objection to mixing gold powder with varnish, IPI furnishes satisfactory Gold Ink Paste which will not tarnish and which can be mixed more readily with varnish than powder.

The importance of freshly mixed gold ink cannot be overemphasized. The difference in results obtained with freshly mixed gold ink and one that is only three days old is remarkable. Generally speaking, improvements have been made in metallic powders in the last few years.

To secure really smooth, brilliant surfaces in printing gold inks, exactly the right proportions of powder or paste and varnish must be used. Not enough powder will give inadequate coverage. An excess of powder, while giving good coverage and a bright result, may cake on the press, requiring frequent wash-ups and the prints are likely to have a grainy appearance. Loose powder may rub off after the print is dry.

SILVER INKS IPI silver inks are furnished ready to print since they do not deteriorate in storage.

TARNISHING The relative tarnishing between gold ink and gold bronzed ink is a moot question. IPI's experience indicates that gold ink has less tendency to tarnish than a bronzed job, although a bronzed job may be more brilliant at the time of dusting. Copper alloy is susceptible to oxidation from the air and to tarnishing from other causes. The bases used under gold bronze have a bearing on tarnishing.

SERVICE Work out your Metallic Printing problems with the help of a competent ink man. IPI is always ready to discuss your plans and make recommendations. Call any of our twenty-eight conveniently located branches.

THE INTERNATIONAL PRINTING INK CORPORATION · 75 VARICK STREET, NEW YORK CITY

ATLANTA BALTIMORE BATTLE CREEK BOSTON BUFFALO CHICAGO CINCINNATI CLEVELAND DALLAS DENVER DETROIT KALAMAZOO KANSAS CITY LOS ANGELES MILWAUKEE MINNEAPOLIS NASHVILLE NEW ORLEANS NEW YORK CITY OAKLAND PHILADELPHIA PORTLAND, O. RICHMOND ROCHESTER ST. LOUIS ST. PAUL SAN FRANCISCO WASHINGTON, D. C.

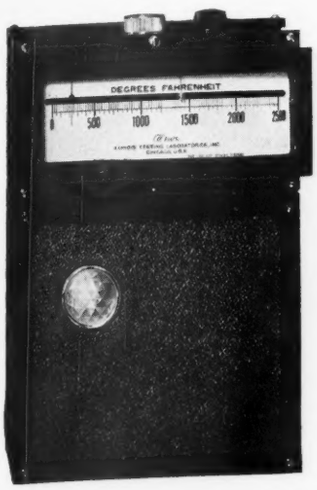
THE IPI "COLORGRAM" FOR OCTOBER—The design on the other side is one of a series by Robert Leonard, planned to express the color mood of the month. This month is devoted entirely to metallic inks used with black and a pale blue background. Metallic inks, being neutral, may be used with many other colors.

New Printing Equipment and Supplies

"Alnor" Pyrometer Controller

The "Alnor" Pyrometer Controller is offered for those who desire to automatically control temperatures of heat treating furnaces, stereotype, electrotype or remelting pots or other heating devices at a definite pre-determined point. Standard temperature ranges from 0 to 800 or 0 to 1000 deg. F. for printing plant operation are available.

The principle of operation is electronic similar to a radio circuit. The pointer of the indicating pyrometer



"Alnor" Pyrometer Controller automatically controls temperatures of stereotype, electrotype or remelting furnaces at definite pre-determined points.

carries a small vane. An adjustable target is provided which carries two condensor plates or vanes. These vanes are the capacitive element of a tuned circuit.

Except at the point when the temperature indicating pointer and the target coincides the circuit is unchanged. When the temperature pointer with its vane approaches the temperature setting, the vanes of the pointer and target interleave and produce a circuit change which in turn operates a relay. The heating current if electric is shut off or in case of the fuel fired operation, the fuel valve is closed partially or completely depending on the type of valve used.

There is neither motor nor depressor bar used in the Alnor Controller nor is there any direct contact between the vanes. The temperature indicating pointer is free to give continuous indication and control.

A red bull's eye indicates whether the heat in the furnace is on or off.

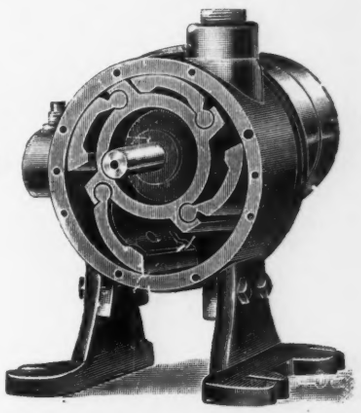
P-Double-E File No. 2G22.

Quick Steam in Radiators

Wherever a stubborn steam radiator refuses to heat up and give the service for which it was intended, then it is necessary to use some other means to secure these results. A radiator, especially those at the end of the steam line, sometimes becomes air-bound and unless relief is provided no steam can enter the radiator. A means for eliminating this condition has been placed on the market by Leiman Brothers, Inc. It consists of a rotary vacuum pump with a motor and separator tank and all the attachments necessary to accomplish the work of relieving the radiator and restoring the heating function. This device may be connected to one radiator or to any number of radiators and is made in many sizes for any size of heating system.

It works automatically so that any radiator that does not promptly reach the desired heat is automatically operated upon by this device and the heat is instantly transported to the radiator by means of a vacuum created therein.

View of Rotary Vacuum Pump which is attached to a motor, separator tank and attachments to force all radiators in the heating system to function normally.

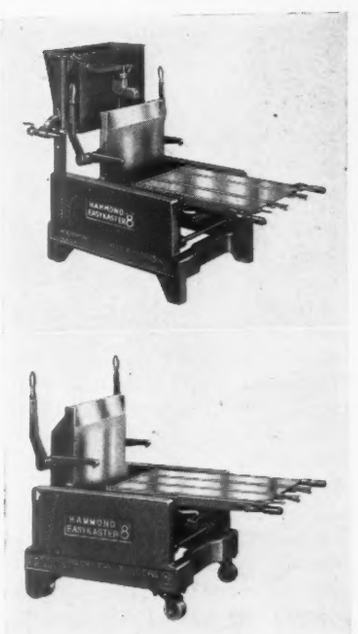


It is manufactured by Leiman Brothers, Inc., and full information may be had without any obligation by writing to them direct or in care of *Printing* EQUIPMENT *Engineer.*

Two New Stereotype Casters

Two new full-page, automatic locking EasyKasters are announced by Hammond Machinery Builders.

Model EK8 is furnished without a melting pot and model EK8-P is furnished with a melting pot. In construction and features both EasyKaster "8s" are identical.



Views of two new full-page automatic-locking stereotype casting boxes. One is equipped with melting pot. Both machines are fitted with automatic shell cast to type-high change.

The manufacturers claim to have developed an automatic locking mechanism that gives more perfect locking pressure distribution. In addition to this they claim the machine is designed to operate with less effort.

Other features of this machine are said to be an automatic shell to type-high change and covered bed rails

(Continued on Page 49)

The Film of News Ink

By Albert L. Lengel*

In which is discussed essentials for getting correct ink film on newsprint and possibility of improving ink and inking devices.

THE only thing actually printed in newspapers is a film of news ink. Quality of print can never be any better than this film permits and quantity production speeds are largely predicated upon the ability to maintain it in satisfactory measure. Regardless of mechanical perfections, increased press speeds are made possible in *practical* ways only through improved quality printing in the first instance.

Layout men recognize and compensate for the limitations of the present inking arrangement. Supplies, materials and tools improved for the use of Art, Typography and Plate Experts all converge in the interest of an ink film design upon the supposition that this film will be evenly and adequately applied to the surface of the plate in use, as predetermined, when actual printing occurs.

Production Manager Albert L. Lengel says our well printed newspapers could be improved if human equation in color setting alone could be reduced to same proportions as impression setting.

From this point on the harmonious wedding of news ink with newsprint presents quite a problem in itself, however, the question of newsprint receptivity for news ink does not in the least alter the prime importance of a mechanically correct and properly applied film of ink regardless of its eventual disposition.

Improved newspaper printing mechanics are obtained through the dimimuation or elimination of irregularities, whether these are present in plate metals, patterns in newsprint, mats or printing surfaces; inconsistencies in chemicals or other supplies; or purely mechanical deficiencies such as untrue surfaces, poor bearings, out-of-balance parts or friaring activities. In all instances, however, a reliable film of ink is of the utmost importance.

While an improved impression constant is desirable, this function can be off 50% at present and be less noticable by the newspaper reader than color off only half as much. Although color is not as faithful as it might indicate, it is often deceiving in that while *black is black* it is difficult to determine under present conditions when this full value, without excess, has been achieved.

Any of our well printed newspapers of today could be improved considerably if the human equation in color setting alone could be reduced to the same proportions as impression setting and maintained as equitably when once set. This would not only speed up operations, but would also enhance the value of all copies printed, especially those "first-off," and would be the means of reducing waste of many kinds.

All inking arrangements on newspaper presses today are of linear design, that is; the ink enters one extreme of the device and is intended to come out the other in a perfect film of ink, leaving a fountain or reservoir in uneven depths or streams of ink and reaching its highest state of perfection on the form rollers, as an equitable film of ink with which to meet the peculiar diversified requirements of the plates in use. A mechanically perfect film of ink on the form rollers is very rarely a desirable one.

There are two principal mechanical distributional functions involved in present inking equipment. One is commonly called distributor as represented by the vibrating action of distribution rollers or ink drums (horizontal distribution). The other by the various diameters and number of ink drums, determining the area of inking surfaces and number of ink transfers made between them (longitudinal distribution). These are mechanical constants relying upon the means of ink induction for their varying degrees of success.

While it is possible to alter locally the length of vibrating stroke, length of dwell of feed rollers, roller diameters and their coverings to effect an improvement, whatever is done does not prevent the result obtained from being a fixed relation which still contains insufficient flexibility with which to meet day-to-day plate makeup requirements properly.

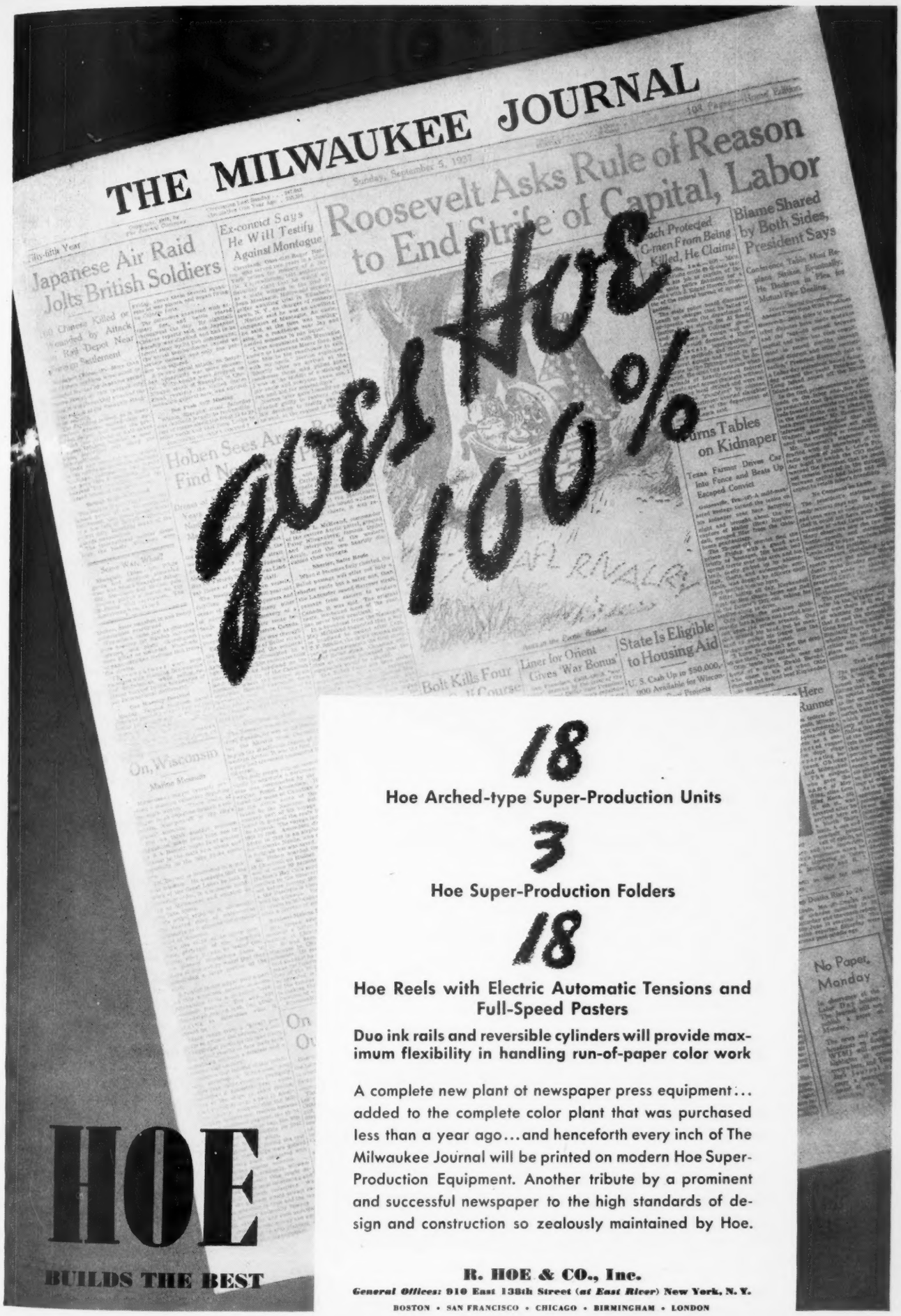
If all of our plates were of solid text matter then present methods of inking could be perfected, but as such is not the case we must be wasting considerable ink in many instances and adding to our strike-through, offset and penetration problems, in our efforts to obtain color uniformity throughout our product. Some of this is due to instances of longitudinal distribution deficiency and in a greater measure is the result of over-distribution horizontally.

While all inking arrangements on rotary relief method printing presses are of similar principle there is considerable difference of opinion as to what constitutes a fundamentally correct inking device.

This problem of perfect mechanical inking is not present in the newspaper rotogravure or intaglio method because the designs are inked directly in accordance with the mechanical peculiarities of the images on the design cylinders. The great strides made by this method of printing recently can be largely attributed to an improved ink control. An improvement would accomplish even more for modern high-speed newspaper printing, as it must be realized that the inking function is the most important mechanical item determining

(Continued on Page 62)

* Production Manager, Oakland (Calif.) Tribune


THE MILWAUKEE JOURNAL
Roosevelt Asks Rule of Reason to End Strife of Capital, Labor
Japanese Air Raid Jolts British Soldiers
Ex-convict Says He Will Testify Against Montague
Blame Shared by Both Sides, President Says
Turns Tables on Kidnaper
State Is Eligible to Housing Aid
Liner for Orient Gives War Bonus
Both Kills Four
On, Wisconsin
No Paper, Monday
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18

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Hoe Reels with Electric Automatic Tensions and Full-Speed Pasters

Duo ink rails and reversible cylinders will provide maximum flexibility in handling run-of-paper color work

A complete new plant of newspaper press equipment... added to the complete color plant that was purchased less than a year ago... and henceforth every inch of The Milwaukee Journal will be printed on modern Hoe Super-Production Equipment. Another tribute by a prominent and successful newspaper to the high standards of design and construction so zealously maintained by Hoe.

R. HOE & CO., Inc.

***General Offices:* 910 East 138th Street (*at East River*) New York, N. Y.**

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Behind the Mold Disk

By L. H. HOUCK*

When the machine backsquirts and salty sweat gets into your good eye, just remember that the back knife has only one function.

EVERY so often a new sail appears on the horizon heralding the arrival of a ship loaded with magic cures for old ailments. Out of the mouths of babes, so to speak, has come wisdom. A short-cut has been found for composing machine repairs—a ten-dollar job is done for a dime and the fellow who discovered it will likely take pride in the additional comment that he didn't know anything about composing machines, either. Thus the laugh is on the thousands of hard-working machinists who just never seemed to get the knack of making machines run by the use of magic.

A case in point is that of a country publisher (and no name on request either) who discovered that the mystery of making machines run right was a lot of hocus-pocus and particularly that stopping backsquirts was duck soup. He said that after having had his mouthpiece lined up by a "city operator" it squirted just as bad as before.

Unable to get results from others, he had to roll up his sleeves and tackle the problem himself. The lack of experience or knowledge only added zest to the game. After a day's hard work, according to his own words, a ruined shirt and some pants, he found that all his machine needed was to have the back knife sharpened and so he recommended this remedy as a cure for all past and future backsquirts and called on all other publishers to follow his example.

The smug sureness of this publisher may lead astray some of the machinist-operators who man the many one and two-machine plants of the country.

I have personal knowledge of many of the problems of the small shop—of necessity, many of these men must mix the business of setting type and preparing copy with the vagaries of cast iron. They must at times drop the work-a-day tasks to pipe a lay that will satisfy and quiet the temperamental antics of one of Mergenthaler's mad machines.

The "city operator" called in by the country publisher may have been just that—so we will dismiss that angle.

Correcting the lock-up on a machine is a whole lot like flying—you either know how to go about it or you don't. If you don't, the more you try the worse it gets as a usual thing. It's mighty bad territory for a barnstormer to be caught in and there have been cases where unruly machines have had the experts rubbing their chins while they stared into space with glassy eyes.

I have always contended that while some things may be accomplished by ignorance and accident, lining up mouthpieces is not one of them. Random application of files and oilstones to the mouthpiece, with a sprinkling of screwdrivering and wrenching at the pot legs, along with answering the telephone and talking with a subscriber about the corn in the north forty, almost never produces results.

One or a dozen newly-sharpened back knives will not cure a faulty lock-up. On the contrary, an improperly installed back knife can ruin a good lockup along with one to four molds. The back knife offers no rosy road to slugs with perfect bottoms. A rose by any other name we must admit would smell as sweet and so we also must agree that a back knife is a back knife and alas and alas, nothing more.

The back knife, merely as a matter of course, should be in fit condition to perform its duty. (We're going good on this back knife business—goin' to town.) As a matter of course it should be sharp and free from nicks and it should be set in such a way that it kisses the back of the mold with the gentleness of the bee that steals the nectar from the rose. In doing this it removes most dexterously and with little fuss a few slivers of metal which some guy has named sprues.

When such is the case, the back knife for all its importance, is doing its full duty and the machine for other valid and reasonable causes may backsquirt—may I say—vigorously.

I claim that no amount of petting and pampering of this small part (I'm still talking about the back knife, but I'm goin' to give the mouthpiece down the country in a minute) will cure warped mouthpieces. The back knife may be a sympathetic little cuss but he cannot heal the sores that have eaten away the flesh of the pot roller and the little baby rollers inside. In a way the pot leg bushings may have to look up to the back knife but they have "got to be treated right" too or a shower of hot lead will descend to flow into the cracks and corners where only chips ought to be.

And don't write me when you read the "hot lead" above that type metal is lead, tin and antimony. I got that expression from a gangster magazine three or four years old and it gives this story zip.

Among the many causes of backsquirts one of the most popular is a warped mouthpiece. The mouthpiece is heated and cooled many times a day as it locks up against the back of the mold and it has a trying job. In time most all mouthpieces will pit and warp so that it will be necessary to again fit it to the back of the mold.

The exact condition is found for this trouble as for most other lock-up troubles by taking an impression of the mold on the mouthpiece. Coat the back of the mold with red lead, Prussian blue, black or red job ink and allow the machine to lock-up on it. The result will be a picture of the lock-up on the mouthpiece. Personally I favor red job ink for this in preference to other materials. It is as visible as red lead, has a much finer texture and may be spread thinner, resulting in a better job.

With whatever you coat the back of the mold it will be transferred to the mouthpiece at every point the mouthpiece touches the mold. Thus if the impression shows somewhat evenly all over but spotted, it will indicate that if the mouthpiece is dressed down evenly a very slight amount with a true oilstone, the result might be an even impression. The coating must show above and below the mouthpiece holes and around the ends. Where no ink shows the metal will escape.

If the impression shows on one end and not on the other the pot is out of line and the low side must be brought in—and remember to bring the mouthpiece in toward the mold, screw in on the front screws and out on the back in the pot legs and be sure to tighten the lock nuts *tight*.

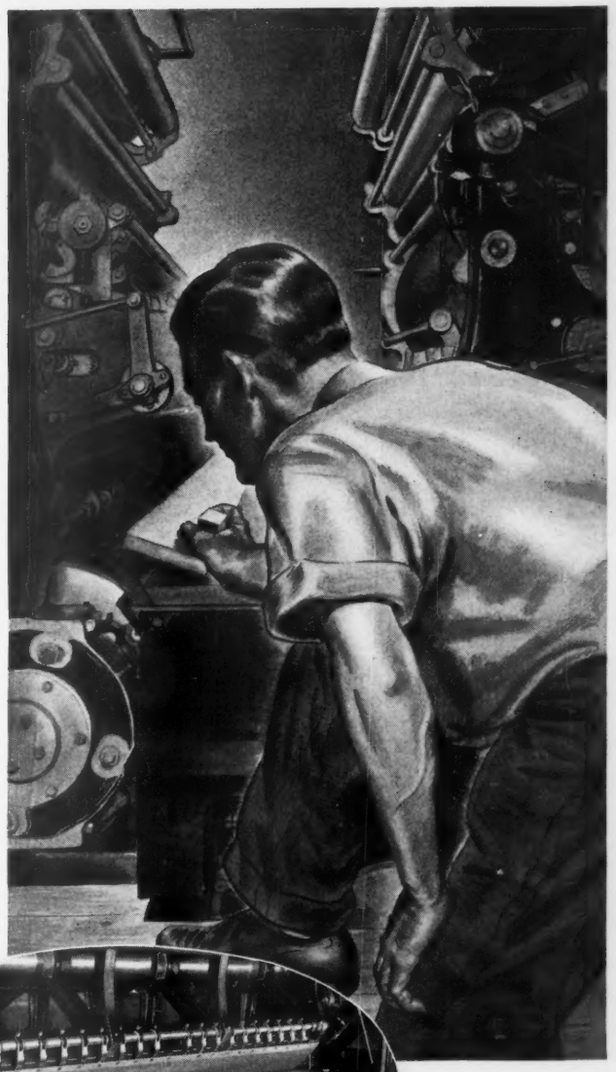
Too much or too little heat on the mouthpiece as well as bad adjustment of the heat in the pot will cause back-

*Chief Machinist, Tampa (Fla.) Daily *Times*.

HARRIS

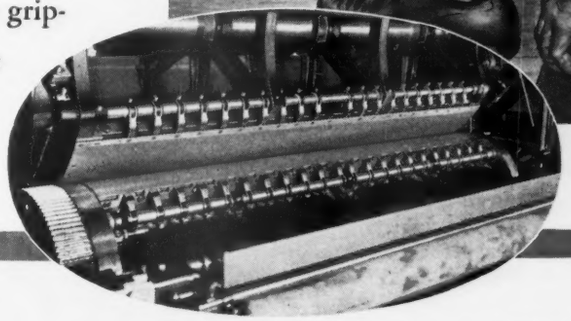
Spring Grippers

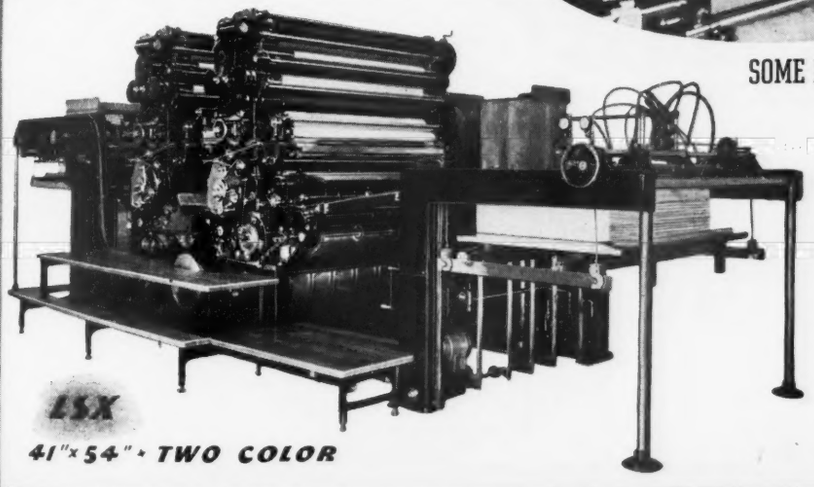
will stay set over a period of years



● Next to press speed, spring grippers as much as anything else on a press increase profits. This is due first to the fact that spring grippers in their construction eliminate the necessity for continuous setting for proper holding when printing different weights of stock. Secondly, spring grippers increase press profit because they eliminate otherwise constant gripper adjustment which would mean lost press time.

Harris press construction uses spring grippers throughout. The saving in time otherwise lost in setting grippers increases press production and profit.





41"×54" • TWO COLOR

SOME FEATURES OF HARRIS COLOR GROUP

Revolutionary Harris H. T. B. Stream Feeder • Precision Tapered Pre-loaded Roller Bearings • Choice of Feed Roll or Rotary 3 Point Registering Mechanism • Micrometer Dials for Setting Printing Pressures • Quick Change Plate Clamps • Double Size Transfer Cylinder • Inker Load Eliminated from Printing Couplet • Harris Cleanable Ink Fountain • Adjustable Ink Vibration • Multi-Unit Construction • Spiral Gear Drive • Spring Grippers Throughout • Efficient Pile Raising and Pile Lowering Mechanism • Vacuum Control of Sheet in Delivery • Dial Press Speed Indicator • Feeder and Delivery Accommodate Any Style or Size Platform • One Piece Base with Extra Heavy Framing and Construction • Micrometer Adjustment of Ink Supply • Ball Bearing Mounting of All Ink Rollers • Improved Delivery Gripper Bar and Mounting.

HARRIS · SEYBOLD · POTTER · COMPANY

GENERAL OFFICES: 4510 E. 71st St., Cleveland, Ohio • HARRIS SALES OFFICES: New York, 330 West 42nd St. • Chicago, 343 South Dearborn St. • Dayton, 813 Washington St. • San Francisco, 420 Market St. • FACTORIES: Cleveland, Dayton

squirts. Usually it is found that the better the lock-up the more latitude permitted in heat adjustment. When a machine backsquirts on the slightest change in heat the lockup will be found to be below par.

Another thing, when testing for lock-up with red ink: Don't fool yourself with a thick coating—put it on thin and when you are sure the mouthpiece is in shape, clean it all off, reapply and take several impressions. If it still shows a lockup then lock a line in the machine and recast a galley of type at good speed. If the bottom of the slug still shows the marks of the mouthpiece holes and there are no bright spots then you may be assured you have a lockup. One slug won't do, because you can take a bad backsquirting machine, clean off the mouthpiece and mold with a wiping cloth and get a few good slugs.

Sometimes Linotype mouthpieces have been ground down and fitted so many times that the face is low. As a result, the mouthpiece screws will prevent a good lockup. The best remedy for this is a new mouthpiece and while the old one is off you can dig the dross and dirt out of the throat.

So if a mouthpiece screw is holding the pot back, sharpening the back knife is not going to help any.

Sadly enough, a good lockup is dependent upon the back of the mold being straight or nearly so. If you have four molds on your machine and three of them measure 0.875 in. from end to end and one of them measures 0.850 in. on one end and 0.875 in. on the other, you will get a lockup of three and backsquirts on one. The remedy is apparent.

Sprung Linotype mold posts that allow the cap to leave its parallel position or become tipped in relation to the mold body will also defeat perfect lockup. The trouble comes in various degrees and sometimes is hard to detect.

Worn pot roller, broken anti-friction rollers and pins will cause backsquirts that no amount of mouthpiece aligning will eliminate. Take a bar and pry the weight of the pot off the pot roller and feel it for play. If there is much shake at all take out the pot lever assembly, repair the pot roller by adding new anti-friction rollers or the bearing pin if necessary to take out the play. While you have the pot lever out take the eyebolt and lock-spring assembly apart. If spring is broken, replace.

When replacing the eyebolt and spring, the front nut is tightened to the sleeve then backed off very slightly. The back nut should show at least 1/8 in. clearance between nut and pot lever when the pot mouthpiece is locked against the mold.

Mouthpiece jets out of line with the mold will produce an inferior slug and sometimes cause backsquirts. The holes in the mouthpiece should line with the smooth side of the slug, just slightly above. They will then center on a six-point slug. The adjustment is to raise or lower by the screws in the pot legs.

So much for the most usual causes of lockup trouble. Here are a few unusual cases.

On a newly installed crucible it was found that the asbestos packing around the mouthpiece prevented the full forward movement of the pot. In another case the same results were produced because the gas mouthpiece burner bracket was binding very lightly on the back knife bracket.

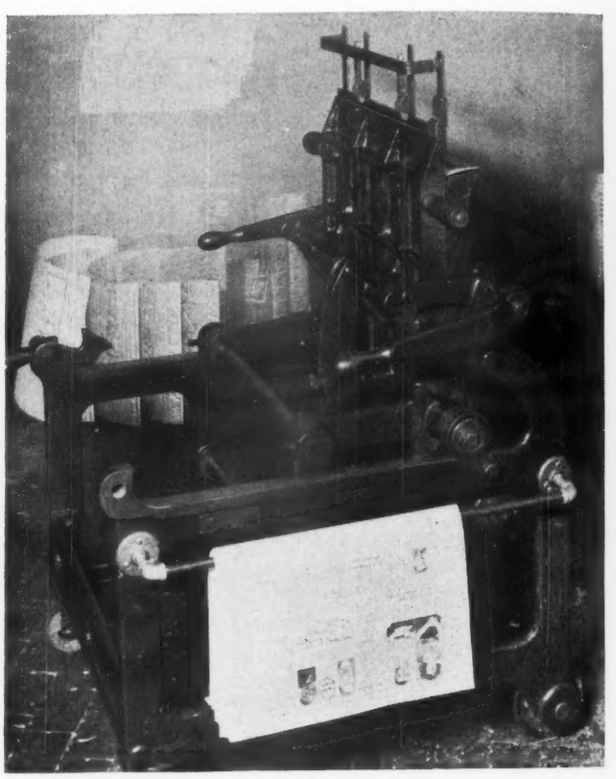
A loosely attached mold will move before the advance or retreat of the pot and cause trouble. Always check the screws that hold the mold to the disk and drive them home with a good screwdriver—but don't say I said *hammer*.

Look to the pot leg bushings and notwithstanding what somebody's uncle said, apply a drop of friendly oil now and then for the pot leg bushings.

So when the day comes that the metal runs down the back of the mold disk instead of into the mold cell and the slugs come out with a bright and shiny bottom and the salty sweat gets into your good eye, just remember there is a reason for all things—and in your particular case the back knife may need sharpening after all.

Tail Sheet Paper Rack

A pipe bracket constructed from standard pipe and fittings including two floor plates, has been screwed to each flat casting box in the plant of the Youngstown (O.) *Vindicator*. Mechanical Superintendent Leslie Griner



states the brackets are used for storing the cut sheets of paper used for tails. Having these on the side of each casting box saves time and steps for the men while casting.

Best Technical Printing Magazine

I find very much interesting material in *Printing* Equipment *Engineer* and always pass it around to the boys so they may read it also. I was having trouble with one of my Linotype electric pots at one time and that very month your magazine contained an article which helped us to fix it without any hard thought. Several times I have read articles dealing with matters which have helped me greatly. I will say *Printing* Equipment *Engineer* is the best technical printing magazine published today.

R. L. Lindner, Mechanical Superintendent
Ashland (Ore.) *Daily Tidings*.

UNEQUALLED!

Scott Units

Scott Folders

Scott Reels

Scott Pasters

Scott Units — Superior printing—sustained high speed—modern oil enclosures—convenient—safe—reliable.

Scott Folders — Exclusive 3 to 2 Ratio design gives widest range of products—neatest folding—non-chokable—safe.

Scott Reels — Jones Automatic Tension Governor——instantaneously responsive—no belts, straps or electric complications.

Scott Pasters — Automatic web splicing at all speeds—core drive, core brakes—nothing on surface of roll—easy to operate.

All these features, found only in Scott Presses, assure users the fastest running speeds with safety and the maximum obtainable production of well printed, neatly folded newspapers.

"Fastest in the World—Bar None"

WALTER SCOTT & COMPANY

New York Office
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Chicago Office
1339 Monadnock Block

Recent Equipment Sales

Hoe Delivers Press to Boston Globe

The new Hoe Vertical-Type Super-Production Octuple Press, with new Super-Production Double Former Folder, recently ordered to supplement the present Hoe equipment at the Boston *Globe*, will be delivered this month. To handle a rapidly increasing circulation with the greatest economy of operation, the new press includes all the latest Hoe improvements: Instantaneous Plate Lock-Up, Patented Automatic Pump System of Ink Distribution, Crank-shaft-type Ink Motion Drive and Forced Feed Lubrication.

The new press will be added to the existing Hoe Vertical-Type Super-Production Octuple Press converting it into an 8-unit, two folder line, all mounted on an extra heavy substructure. The entire 8-unit line will be equipped with Hoe 3-arm reels, Electrically Controlled Automatic Tensions and Hoe Full-Speed Pasters.

When completely set up and running the new press will resemble other recent installations of Vertical-Type Hoe Super-Production units, such as the Philadelphia *Record*, Cleveland *Plain Dealer*, New York *Sun*, and New York *World-Telegram*.

Intertypes at "Times"

The Los Angeles *Times*, among the first of the larger dailies to use a streamlined makeup, is continuing its modernization program. Twelve four-deck streamlined Intertypes were recently ordered, some of which have already been installed. Included in the order are several mixer machines each carrying eight magazines.

Installs New Equipment

The Vancouver (B.C.) *News Herald*, has purchased a new Duplex Standard Tubular Press, 16-page capacity. Complete Tubular stereotype equipment and equipment for producing color work have been included with the order. The *News-Herald*, staff owned and operated newspaper, was founded four years ago. It is a cooperative venture and commenced business with a capital of $5,000 and is now grossing over $250,000 annually. The new press is expected to be installed and operating about the middle of November.

Recent Linotype Installations

Linotypes recently have been installed by the University of Virginia Printing Department, Charlottesville, Va.; Christian Science Publishing Company, Boston; Buffalo Courier Express Company; Polish Educational Publishing Association, Detroit; Thomson (Ill.) *Review;* Journal of Commerce Publishing Company, Chicago; *Ledger-Tribune*, Attica, Ind.; Rockford (O.) *Press;* St. Lawrence Plaindealer Company, Canton, N. Y.; Illinois Typesetters, Inc., Chicago; Lloyd Hollister, Inc., Wilmette, Ill.; Dana Printing Company, Muskegon, Ill.; Louisville Times Company; Montgomery (Ala.) *Advertiser;* Security Printing Company, Pine Bluff, Ark.; Wichita (Kan.) *Beacon*; Pacific Press Publishing Association, Mountain View, Calif.; Phillips Printing Company, Los Angeles; Jim Mayfield, Jr., Monahans, Texas; Quality Printing Company, St. Petersburg, Fla.; Chicago *Tribune;* Daniel P. Gonzalez, Laredo, Texas; Modern Printery, Danbury, Conn.; University of Oklahoma, Norman, Okla.; Schuyler *News*, Rushville, Ill.; Service Typesetters, Kansas City, Kan.; St. Benedict's Abbey, Inc., Mt. Angel, Ore.; Easton (Pa.) *Express; Courbon Courier*, Millersburg, Ky.; Racine (Wis.) *Journal-Times;* Gainsboro Press Hotel and Restaurant News, Boston; Decatur (Ill.) *Herald* anhed t *Daily Review;* Litin Lino Service, New York City; Oxford Printing Company, Oxford, O.; Rochester Monotype Composition Company, Inc., Rochester, N. Y.; Daily Pantagraph, Inc., Bloomington, Ill.; Boro Typographers, Inc., New York City; *Daily Globe*, Shelby, O.; *Clarke Courier*, Berryville, Va.; Sellers and Lauchmen, Lansdale, Pa.; *Virginian-Pilot* and the *Ledger-Dispatch*, Norfolk, Va.; Hornell (N. Y.) *Tribune; Leader* and the *Telegram*, Eau Claire, Wis.; Hancock *Democrat*, Greenfield, Ind.; South River *Spokesman* and the New Brunswick *Spokesman*, New Brunswick, N. J.; Lewiston (Idaho) *Tribune;* Akransas *Democrat*, Little Rock, Ark.; *Daily News*, New York City; Reading (Pa.) *Eagle;* Port Huron (Mich.) *Times-Herald;* Lockport (N. Y.) *Union-Sun* and the *Journal;* Standard Linotypers, New York City; Columbia (Mo.) *Tribune;* S. C. Toof and Company, Inc., Memphis, Tenn.; Aberdeen (Wash.) *Daily World;* Firemen's Relief Association, Los Angeles; *Mountain Advocate*, Barbourville, Ky.; Gelman Sign and Printing Service, Philadelphia; Atlantic Union College, South Lancaster, Mass.; Richmond (Va.) *Times-Dispatch;* Riverside Press, Athens, Pa.; Capper Printing Company, Topeka, Kan.; Motschall Company, Detroit; Moscow (Idaho) *News-Review;* Selma (Ala.) *Times-Journal;* Western Newspaper Union, New York City; Mendota (Ill.) *Reporter;* Nordmann Printing Company, St. Louis; Shelby Salesbook Company, Shelby, O.; New Brunswick Publishing Company, Ltd., St. John, N. B.; St. Catharines (Ont.) *Standard;* J. Klein and Sons, Montreal; Halifax *Herald* and *Mail.;* Thatcher-Anderson Company, New Brunswick, N. J.

Newspapers Install Ludlow Equipment

Ludlows have been installed recently by the Salisbury (N. C.) *Herald;* Kalamazoo (Mich.) *Review;* Harwich (Mass.) *Independent;* Brantford (Ont.) *Expositor;* and the Mt. Vernon (N. Y.) *Daily Argus*

Newspapers Install Elrod Equipment

Elrods have been installed recently by the Long Beach (Calif.) *Press-Telegram;* Salisbury (N. C.) *Herald;* Ashland (Ohio) *Times-Gazette;* Reporter Publishing Co., East St. Louis, Ill.; North Hollywood (Calif.) *Press;* and the Floral Park (N. Y.) *Gateway*.

Large Duplex Order

The Duplex Printing Press Company has shipped to the Argus Printing & Publishing Co., Johannesburg, South Africa, for printing the *Star*, a special 8-page Unitubular press consisting of 2 units and a half-page folder with rolls at end. One of the units is equipped with a double-color cylinder and the other with a fudge device for printing late news. The press will be driven by a 40 h.p. full automatic 2-motor drive and is equipped with Duplex rubber rollers. This press is part of an order for three presses consisting of 18 Unitubular printing units and 3 folding units in all. The 8-page press is to be used in a subsidiary office and will print a small local section to be inserted into the regular edition. The two large presses consisting of 8 printing units each, are now under construction in our plant. They will be mounted on substructure equipped with reels and pasters. Three 200 h.p. drives have been provided to drive the two large presses. The third drive is to act as a standby motor and will be placed so it can be used to operate either or both presses. The two large presses will be shipped at a later date. The small 8-page press and also the two large presses will be mounted on Korfund isolation material to isolate the press equipment from the rest of the building.

The Pioneer Publishing Company of Oak Park, Ill., has purchased for installation at Roto Color, Inc., St. Charles, Ill., a new 32-page Duplex Unitubular Press. An addition to the company's building has been completed and installation of the new Unitubular press has begun. The new equipment includes: 8 Printing Units, 2 Combination half and quarter page folders, equipped with Duplex patented quick fold centering devices; 2 Double color units; Automatic tensions; Electrically operated paper roll hoists. Two of the units are equipped with double reversing mechanisms so that any desired web lead may be obtained from these units. Color registering mechanisms are applied to all plate cylinders. All of the fountains on this press are removable interchangeable type, making this press unusually well equipped for color work. When this equipment is completely installed the Duplex Unitubular press equipment in this plant will include 16 printing units, 5 combination half and quarter page folders and 6 double color cylinder units.

The Courier Publishing Co., of Roxoboro, N. C., is installing a new Model A Duplex press. The *Courier* is planning on a special celebration and a special edition to initiate the new press.

The New Bedford, Mass., *Standard-Times* and *Morning Mercury* have purchased for a new paper, the Hyannis (Mass.) *Cape Standard-Times*, a new 16-page Duplex Unitubular Press and tubular stereotype equipment.

A 12-page Standard Tubular press is being erected in the plant of the Lindsay (Ont.) *Daily Post*.

An 8-page Duplex Unitubular press is being erected in the plant of the Kansas Color Press, Lawrence, Kas.

A new 3-unit Duplex Unitubular press is being erected in the plant of the *Commercial*, Pine Bluff, Arkansas.

A new 16-page Standard Tubular press is being erected in the plant of the Naeter Brothers Publishing Co., Cape Girardeau, Mo. (*Southeast Missourian*).

The Duplex Printing Press Company has shipped to the New Mexico Publishing Co., Santa Fe, New Mexico (publishers of the *New Mexican*) a new 16-page Duplex Standard Tubular press and complete "Tubular" stereotyping equipment.

The Duplex Printing Press Company shipped recently to the Star Publishing Company, Windsor, Ont., a new 16-page Metropolitan Super Duty Unit, equipped with a color cylinder and auxiliary color fountains. This unit gives the *Daily Star* a total of 7 printing units and a page capacity of 112 pages.

An 8-page Duplex Standard Tubular deck has been shipped to the Sunbury (Pa.) *Daily Item*. This equipment will be added to the present 16-page Standard Tubular press, giving a page capacity of 24 pages.

The Duplex Printing Press Company shipped recently to the Williamsport (Pa.) *Sun-Gazette* a 16-page Semi-Cylindrical Unit, which makes its Duplex Press of octuple capacity.

A new Duplex Model E High-Speed Flat-bed press is being erected in the plant of the Polish Educational Publishing Association, Detroit, Mich.

NOW 22% MORE LIGHT FROM THESE NEW...

Your lighting dollar buys more than ever before. The new 350-watt Cooper Hewitt gives the same amount of light as the former 450-watt unit. You can run more lamps per circuit. They have high power factor, instant starting and hang horizontal to give the best light distribution.

These new "24-hour skylights" assure an ease of seeing, even in the most difficult places, that benefits both worker and manufacturer. The soft, detail-revealing light does not fatigue the eyes. It promotes better work and minimizes errors.

Have our nearest representative survey your needs. It places you under no obligation. He will give you the facts about the light which is enjoyed by more than a million workers and their employers. A letter will receive our immediate attention.

General Electric Vapor Lamp Company, 899 Adams Street, Hoboken, New Jersey.

Here in this modern composing room 20 of the new Horizontal combination Cooper Hewitt incandescent lamps with diffusers are used. The light is just right to reveal all the details so essential to efficient and rapid handling of type.

GENERAL ELECTRIC VAPOR LAMP COMPANY

847C

ON GUARD!

to maintain high quality...
to meet new demands

Guardians of your peace of mind are the men who are constantly at work in the laboratory of the Atlantic Zinc Works. These men are assuring the dependability and protecting the reputation for highest quality which Zomo Electric Zinc and A-Z Alloy have always enjoyed. Every single sheet of these metals must pass exhaustive tests before being backed with our trademark and reputation.

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Leading metal distributors in the United States, Canada and England carry stocks of these metals.

•

Have you any engraving metal problems?

The laboratory of the Atlantic Zinc Works has been helpful in solving many problems presented to us by perplexed engravers. If you are confronted with any difficulties concerning the behavior of your metal, we will count it a privilege to aid you in working out a satisfactory solution. Write to Atlantic Zinc Works, Atlantic Basin, Brooklyn, New York.

ZOMO ELECTRIC ZINC
A-Z ELECTRIC ALLOY

Patents

AUGUST-SEPTEMBER, 1937

Bookbinding:

2,090,796. BINDING OF BOOKS. Alfred James Kitcat, London, England. Application August 20, 1935, Serial No. 36,946. In Great Britain August 25, 1934. 1 Claim. (Cl. 281—23.)

In the process of binding a book involving a rounding and backing operation, the steps consisting in providing a strip of textile material with a plurality of longitudinal creases intermediate the side edges, then, preparatory to the rounding and backing operation, applying a length of the creased strip by adhesive longitudinally to the back of the book with a predetermined sufficient portion of the area of the strip intended to come into contact with the back of the book creased to provide the strip with the necessary capacity and fullness to allow the back of the book to fully spread to intended proportions in the subsequent rounding and backing operation, and finally causing the spreading of the strip transversely to full capacity into a practically uncreased condition in the rounding and backing operation.

Composing Machines:

2,090,654. DUPLEX RAIL DELAY MECHANISM. Lester M. Walden, Chicago, Ill. assignor, by mesne assignments, to Teletypesetter Corporation, a corporation of Delaware. Application December 29, 1933, Serial No. 704,467. 40 Claims. (Cl. 199—29.)

1. In a linecasting and composing machine, the combination of an assembling block for receiving selectively released matrices from which a printing slug is to be cast including a rail shiftable into two positions to accordingly support or reject subsequently received matrices, apparatus for shifting the rail, a record reader responsive to various signals stored in a tape, and adjustable means operatively associated with the record reader and specially responsive to rail shifting signals received thereby for delaying the effectiveness of the signals for a predetermined interval that may be varied in accordance with predetermined adjustment.

2,091,286. CONTROL UNIT FOR LINE CASTING AND COMPOSING MACHINES Howard L. Krum, Kenilworth, and Albert H. Reiber, Chicago, Ill., assignors, by mesne assignments, to Teletypesetter Corporation, a corporation of Delaware. Application March 23, 1932, Serial No. 600,606. 48 Claims. (Cl. 199—18.)

1. In a control mechanism for linecasting and composing machines, a driving source, a driven train, and a control member operated under the joint control of two predetermined conditions for engaging the driving source and the driven train.

2,092,211. SLUG CASTING MACHINE. John H. Hilpman, Springfield Gardens, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York. Application April 11, 1936, Serial No. 73,849. 39 Claims. (Cl. 199—50.)

1. A slug casting machine including, in combination, a pair of line clamping jaws movable one toward the other in quadding, mechanism for effecting such quadding movement of the jaws, a pair of devices, one for each jaw, to cooperate with the jaws when in quadding position for exerting pressure on the line, and common operating means for the devices.

2,092,220. SLUG CASTING MACHINE. Richard R. Mead, Queens Village, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York. Application April 11, 1936, Serial No. 73,847. 20 Claims. (Cl. 199—50.)

1. A slug casting machine including, in combination, a pair of line clamping jaws movable one toward the other in quadding, mechanism for effecting such quadding movement of the jaw, and means acting to effect a limited separating movement of the jaw after casting to relieve the pressure on the line and for preventing full separating movement of the jaw until after the composed line has been withdrawn from between the jaws.

2,092,554. MATRIX CASE. Philip P. Merrill, Evanston, Ill., assignor to Ludlow Typograph Company, Chicago, Ill., a corporation of Illinois. Application August 24, 1936, Serial No. 97,691. 16 Claims. (Cl. 276—44.)

1. A matrix case having partitions forming compartments for matrices of different overall lengths and having body portions and ears extending in opposite directions therefrom, those of the partitions which form the side walls of the compartments being so spaced apart as to receive between them the body portions of the larger of the matrices and form supports for the ears and to receive between them the smaller of the matrices in their entirety.

2,092,856. TYPE COMPOSING MACHINE. Frank H. Poeppelmeier, Dayton, Ohio, assignor to Econotype, Inc., Dayton, Ohio, a corporation of Delaware. Application April 13, 1936, Serial No. 74,137. 39 Claims. (Cl. 276—3.)

1. In a type composing machine, a type magazine, an ejector, a channel member into which selected type are forced by the ejector, and endless belts which converge at a common point near the ejector for carrying the type in a horizontal position from the magazine to he ejector.

Feeding, Folding, Delivery:

2,090,858. PAPER WEB TENSIONING MECHANISM FOR PRINTING PRESSES. Gilbert V. Anderson, Philadelphia, and Wesley E. Conklin, Wyncote, Pa., assignors to William F. Fischer, Philadelphia, Pa. Application January 15, 1936, Serial No. 59,164. 3 Claims. (Cl. 242—75.)

3. Paper tensioning mechanism for printing presses and the like including a shaft; an arm secured to the shaft; a restraining member carried by the arm and adapted to bear upon the peripheral surface of the supply roll from which the web is continuously drawn in satisfying the demands of the press; electric means for inducing torque in the shaft to keep the restraining member in pressure contact with the roll; electric means actuated from the shaft for automatically controlling the torque inducing means for maintenance of uniform tension on the web throughout the unwinding period of the roll and manually-operable auxiliary electric means for regulating the electric current flow and thereby predetermining the degree of tension which is to be maintained on the web by the torque inducing means.

(Continued on Page 56)

Patent Papers

Printed copies of patents are furnished by the United States Patent Office at 10 cents each. Address the Commissioner of Patents, Washington, D. C., and enclose 10 cents for each patent paper wanted.

Announcing 2 new Hammond EASYKASTER "8"'s

MODEL EK 8-P EASYKASTER "8"

Two new Hammond EasyKaster "8's", of full page size with automatic 4-point lock-up, have exceptionally advanced features—

SCIENTIFIC PRESSURE DISTRIBUTION—

A single motion locks the beds at four points which are so positioned with totally enclosed floating mechanisms, that the locking pressure is entirely balanced and evenly distributed. Thus the usual locking strains and stresses are eliminated.

AUTOMATIC SHELL to TYPE-HIGH CHANGE—

Without mechanical changes, the EasyKaster "8" automatically adjusts for either type-high or shell.

ROLLING BED—

An easier rolling bed has been developed for the EasyKaster "8" that can be compared to the floating ease of the Glider TrimOsaw's ball-bearing table.

COVERED RAILS—

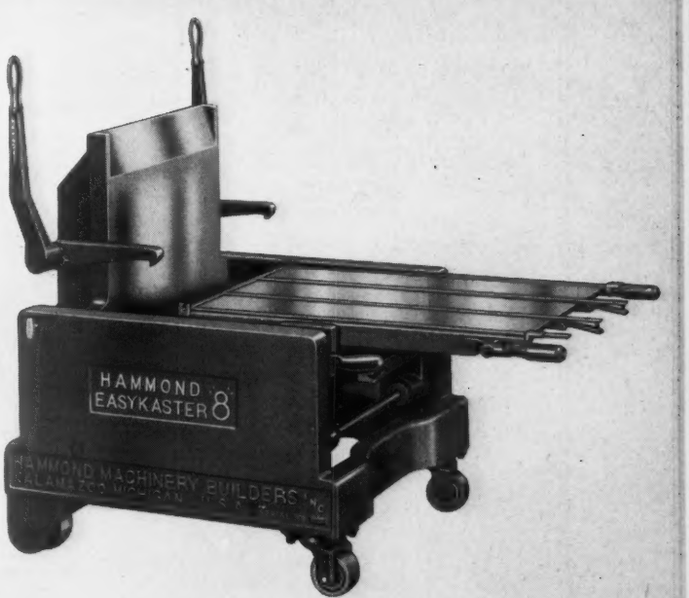
The bed rolls on rails that are totally covered to eliminate cleaning.

WHEEL LOCKS—

Wheel locks are provided on Model EK8 as a handy means for the operator to prevent movement of the machine during operation.

MELTING POT—

The combination of an 800 pound melting pot with an automatic lock-up, full page casting box is an unusual development. In addition, the pot is insulated, fast heating and valve controlled.



MODEL EK 8 EASYKASTER "8"

STANDARD EQUIPMENT:

Model EK8-P includes gas Melting Pot and one set of either shell, type-high or base-high casting bars. (Part-low gas control can be had as special equipment.)

Model EK8 includes 4 casters (2 front casters swivel) and one set of either shell, type-high or base-high casting bars.

Hammond now gives you SCIENTIFIC PRESSURE DISTRIBUTION *plus* Automatic Shell to Type-High Change and 4 Other Advanced Features

Hammond Machinery Builders INCORPORATED

NEW YORK 1604 Douglas Ave., KALAMAZOO, MICH. CHICAGO

Send today for NEW EASYKASTER Descriptive Folder

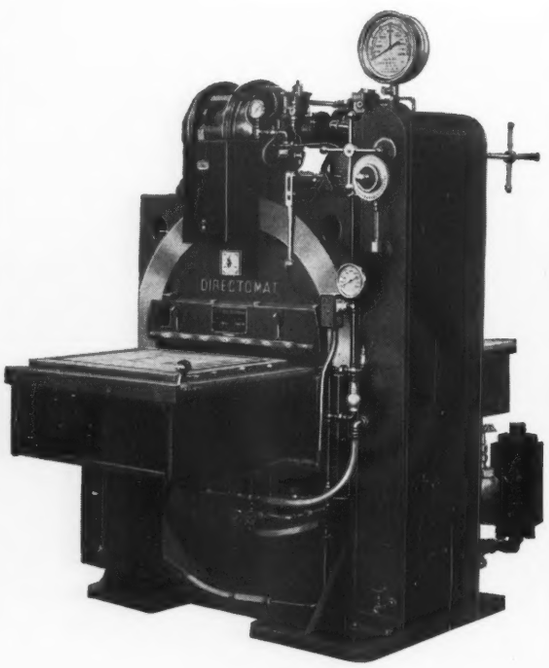
ELIMINATE GUESS WORK!

Rule of thumb methods and guesswork in mechanical operations of newspaper production have largely made way to modern precision methods, such as is now provided by the DIRECTOMAT Hydraulic Matrix Press.

The DIRECTOMAT definitely eliminates the guesswork unavoidably associated with the roller method of moulding. It readily permits application of the correct amount of pressure to conform with the varying characteristics of form, mat and blankets.

The DIRECTOMAT also eliminates the stretch of the mat which is unavoidable in roller moulding. This stretch not only distorts the face of the type and the dots in the screen, but it limits the moulding depth obtainable without breaking or cutting the mat.

The result is greater sharpness and uniformity of the type matter and more detail in the halftones.



THE DIRECTOMAT

is suitable for dry mats (cold moulding) and wet or plastic mats (hot moulding).

Write now for full particulars or a demonstration in any of 27 cities.

Lake Erie Stereotype Equipment Corp.

Division of Lake Erie Engineering Corp.

Kenmore Sta. Buffalo, N. Y.

CORONET

Coronet is the latest typeface announced by the Ludlow Typograph Company in matrix form for Ludlow hand-set, slug-cast composition. Manufacturer states "Coronet is a modern script of style and distinction, especially useful for any printed advertising intended to impart the impression of up-to-the-minute style, high quality, and class. Used for heads, Coronet will effectively 'dress up' the pages of magazines and house organs."

The New Ludlow Coronet distinguished script typeface

Coronet is available in sizes from 18 to 72 point inclusive.

This is the fourth script typeface produced by the Ludlow organization, its predecessors being Mandate, Mayfair Cursive, and Hauser Script, each of the four having its own particular uses and values.

"With Coronet," states the manufacturer, "as with other cursive and italic Ludlow faces, 'full-kerning' effects in composition are obtained. Thus, Coronet, in Ludlow slug form, can be printed from directly, and even subjected to dry mat stereotyping."

NOW ASSISTANT MANAGER

Elmer Dunn has been appointed Assistant Manager in charge of the Denver office of American Type Founders.

For many years he has been active in sales work in the Denver territory and will continue to render service personally to all of his customers as heretofore.

HOFFMANN RETURNS

Frank Hoffman, assistant secretary and assistant treasurer of Intertype Corporation, has returned to his Brooklyn headquarters after a three months' visit among Intertype representatives and friends in South America and the West Indies. Mr. Hoffman's itinerary included Cuba, Jamaica, Venezuela, Colombia, Peru, Chile, Argentina and Brazil.

WELP SERVES AS JUDGE

Among the judges for the Fifty Direct Mail Leaders of 1937, announced by the Direct Mail Advertising Association, was George Welp, Interchemical Corporation. Mr. Welp is serving on the judging committee as the representative of the D.M.A.A. Board of Directors.

The Direct Mail Leaders are chosen from the hundreds of direct mail campaigns entered each year in the D.M.A.A.'s annual competition. The 1937 Leaders were featured at the 20th Annual Direct Mail Convention in Cleveland October 13, 14 and 15 at Hotel Carter.

LEIPZIG FAIR SUCCESSFUL

The Leipzig Fair has just concluded its 197th session with a marked increase in attendance and the number of exhibitors. The generally greater activity in world trade is reflected by the attendance of over 150,000 exhibitors and buyers, attracted from seventy-four countries. More than 6000 buyers from foreign countries, including the United States, visited the Fair, as compared with 3700 foreign buyers last Fall. The Fair comprised 5505 exhibits of the newest art and industrial products, including 361 from countries other than Germany, an increase of thirty-five per cent over 1936. American participation has fully doubled. A general increase in the demand both for raw materials and finished products was indicated in world markets.

AMERICAN INSTITUTE OF GRAPHIC ARTS • ANNUAL EXHIBITION OF COMMERCIAL PRINTING OF THE YEAR

Call for 1937 *Specimens*

STATEMENT OF AIMS AND PLATFORM

In order to clarify the basis on which exhibits are selected and principles on which awards will be made, the following platform has been adopted:

1. This exhibition is intended to be a record of the best commercial printing of the year.

2. It embraces material which has been produced chiefly through any of the arts and processes commonly included in the graphic arts.

3. The basis of selection is two-fold: first, the standards of good taste, creative excellence, and craftsmanship for which the A. I. G. A. stands; second, the practical applications and effectiveness of each piece for the purpose intended.

COMMERCIAL PRINTING COMMITTEE
H. Lodge Robertson, Sec'y, 732 Sherman St., Chicago.

Date and Place of Exhibition. The exhibition will be opened in Chicago on December 6th, at the Lakeside Press Galleries.

After the opening in Chicago, the exhibits will be shown in New York and then in cities throughout the country. This traveling exhibition has for years been a feature wherever it has gone. It is viewed by thousands interested in the graphic arts.

Certificates of Merit will be awarded for all entries that may be selected for hanging. This selection will be made by a distinguished jury, representative of all phases of the graphic arts.

A Hanging fee of two dollars will be charged for each specimen that is accepted by the jury to be shown in the exhibition.

SPECIFICATIONS AND CONDITIONS

1. Specimens may be submitted by the designer, printer, advertising agency, or the client for whom executed, and must have been produced in the United States or Canada since September, 1936.

2. All specimens must be sent prepaid and addressed to H. Lodge Robertson, Secretary, Commercial Printing Committee, 732 Sherman Street, Chicago, Ill.

3. Each specimen submitted must have a separate slip attached, bearing the following information:
A. Name and address of Exhibitor (stating whether designer, printer, advertising agency, or client for whom executed).
B. Classification of entry. C. Title.

4. Specimens must be postmarked not later than the closing date, October 23rd.

5. Only one copy is required at the time of submission, but one additional copy must be available in case the entry is selected for hanging.

6. Subject to the conditions embraced in the "Statement of Aims and Platform" below, any piece of commercial printing is eligible which does not exceed a flat size of 22 x 28 inches.

7. Specimens will not be returned unless such request accompanies entry and return postage is enclosed.

8. The term "printing" is understood to include any and all commercial reproduction processes such as: letter-press, lithography, offset, rotogravure, photogravure, photo-gelatine, etc.

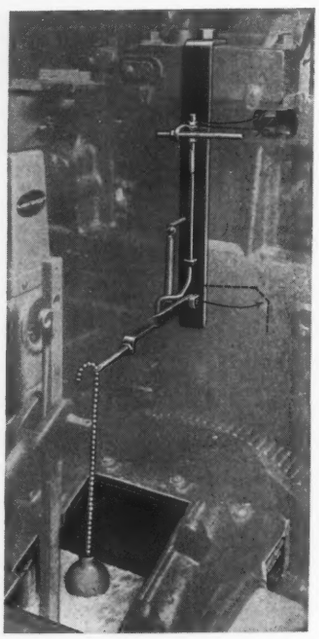
CLOSING DATE OCTOBER 23RD

AIGA
1937 • ANNUAL EXHIBITION OF COMMERCIAL PRINTING OF THE YEAR

FIVE CLASSIFICATIONS • Entries will be judged and exhibits shown under five classifications, as follows: **1.** Booklets, books (for advertising), catalogs, house organs **2.** Folders and broadsides. **3.** Stationery and forms. **4.** Display and novelty pieces. **5.** Publication advertisements.

AUTOMATIC METAL POT LEVEL CONTROL

(FOR LINOTYPES AND INTERTYPES)



CHEAP INSURANCE

Against Low Metal in Pot

Low metal may cause — porous or hot slugs . . . sticking of ejector blades in "hot slugs" . . . possible damage to mold by ejector blade. . . loss of time while cold metal is melted.

● This simple contrivance stops the machine when metal reaches a designated low level.

★

● It removes a "worry" from the operator's mind. This alone justifies the small investment required.

★

● Attached in a few moments time by means of the bolt holding the first elevator slide guide on the face plate. Price $5.25.

TRADE ★ MARK

● The above is one of many "star" parts that are saving typesetting machine owners time and money. It is very much to your interest to insist on them. Convenient points of shipment throughout the country insure you quick delivery.

Join the growing legion of Ace Belt users who are standardizing on the best belt made

LINOTYPE PARTS COMPANY

NEW YORK 203 Lafayette St.

KANSAS CITY 314 West 10th St.

CHICAGO—318 West Randolph Street

LOS ANGELES—1133 Maple Ave.

NEW MATRIX FACE

De Luxe Gothic, in four sizes of 6 point and five sizes of 12 point has been announced by Intertype. Two of the 12-point weights are shown below.

DE LUXE GOTHIC

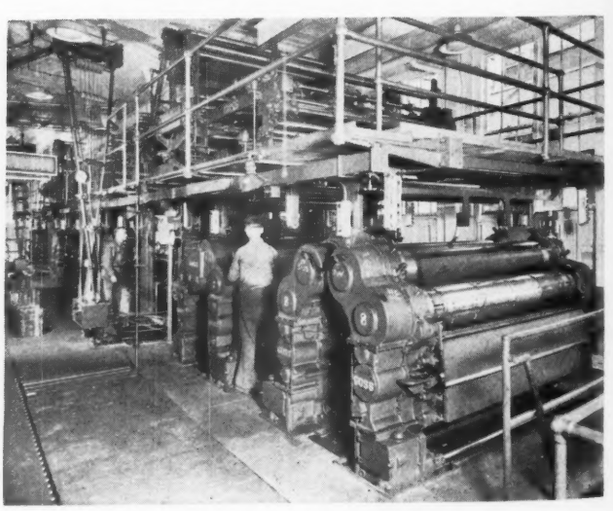
De Luxe Gothic is duplexed with the medium weight of the same face and is also available in combination with Bold Face No. 9.

HEADS DALLAS OFFICE

The appointment of W. E. Ragsdale as manager of the Dallas, Texas, office is announced by Cutler-Hammer, Inc. Mr. Ragsdale became associated with the National Broadcasting Company after receiving a degree in electrical engineering from the University of Oklahoma

Cutler-Hammer's Dallas (Tex.) office is now in charge of W. E. Ragsdale.

Since then his wide experience in the electrical field and his thorough knowledge of the Cutler-Hammer line qualifies him to better serve the company's many customers in the Southwest, according to G. E. Booth, manager of the company's St. Louis office. Located at 624 Santa Fe Building, the Dallas office is under the jurisdiction of Mr. Booth.



View of Goss 8-unit press in plant of the Youngstown (O.) *Vindicator*. The new building, mechanical equipment and production executive personnel, under the supervision of Mechanical Superintendent Leslie Griner were described in the August issue of *Printing* EQUIPMENT *Engineer*. The pressroom is in charge of Earl R. Weiskittel. This new press is capable of being operated at a speed of 60,000 papers per hour.

● BURGESS CHROME MATS shrink uniformly to help preserve original lineage.

A LABORATORY PRODUCT

Your Experience--Our Laboratories

The Burgess Chrome Mat, standard of the field today, is a product of two things: *your experience—our laboratories*. Each of its many features is designed to help you meet, with better results, one or more of your stereotype and mat problems. This constant laboratory study has built for us a wealth of stereotype and mat data which may be of help to you. And because every true laboratory gets a "kick" out of solving problems . . . why don't you consult us about yours. There's no obligation of course.

BURGESS CELLULOSE COMPANY - Freeport, Illinois

Pacific Coast Representative, RALPH LEBER, 426 Polson Bldg., Seattle, Washington

A304

CHROME MATS

Made in U. S. A.

EDES PHOTO-ENGRAVING

EDES SUPERFINE QUALITY ZINC

ZINC

THE STANDARD FOR MORE THAN 80 YEARS

HOLDS THE FINE LINES

THE EDES MANUFACTURING CO., PLYMOUTH, MASS.

Stocks Carried by the Following Representatives

John H. Heimbuecher Metals Co., 514 No. Third St., St. Louis, Mo.
Chemco Photo Products Co., 25-27 So. Market Street, Chicago, Ill.
E. H. Walker Supply Co., Printcraft Bldg., Washington, D. C.
Selby Mohr, 883 Mission St., San Francisco, Cal.
C. S. Illingworth, 49 Springville Avenue, Buffalo, New York
Thompson-Hayward Chemical Co., 2228 Blake St., Denver, Colo.
Thompson-Hayward Chemical Co., 909 2nd St. So., Minneapolis, Minn.
Metzger Photo Supply Co., 1091 So. Main St., Akron, Ohio
G. C. Dom Supply Co., 125 East Pearl St., Cincinnati, Ohio

Compare their
UNIFORMITY

Compare their quality — their trouble proof casting ability— their plasticity, stayback and uniform shrinkage. Their uniformity in these features as well as others is the reason why Wood Dry Mats are the popular favorite. Order a sample batch and convince yourself!

WOOD DRY MATS

Always Uniform

WOOD FLONG CORP.
HOOSICK FALLS, NEW YORK

Master Craftsmen make them for Master Craftsmen

MIEHLE EXHIBITS AT D.M.A.A.

Invitations to printers were extended by the Miehle Printing Press and Mfg. Co. of Chicago, to see Miehle Vertical, Serial No. 10,000 on exhibition at the national convention and exhibition of the Direct Mail Advertising Association held at Hotel Carter, Cleveland, October 13 to 15.

Fifteen years ago, Miehle Vertical, Serial No. 1 was introduced. Since its introduction, 10,000 Verticals have been bought by printers in this and forty-six foreign countries.

Representatives of the Miehle organization in attendance at the convention and exhibition at Cleveland were: J. E. Eddy, Executive Vice President, Gordon Kelley, Vice President, W. J. McWilliams, C. I. Mansur, Vice President, Carl Mellick, W. L. Scantlin, and C. R. Spicher, all of Chicago; W. L. Leonard, Buffalo; C. A. Mills, Philadelphia; E. J. O'Hayer, Vice President, New York; F. J. Tolan, Cleveland and R. J. Waite, Boston.

CORLISS PROMOTED

George H. Corliss, Advertising and Sales Promotion Manager for the past four years for Lewis-Shepard Company, Boston, Mass., manufacturers of materials handling equipment, has been appointed Regional Manager for the company with headquarters in Los Angeles at 1401 Santa Fe Avenue.

Mr. Corliss was formerly associated with the S. A. Woods Machine Company, Boston; J. A. Fay & Egan Company, Cincinnati, and the Kewaunee Mfg. Company, Kewaunee, Wis., as Advertising and Sales Promotion Manager.

FIVE WAYS TO BUY EQUIPMENT

With respect to equipment obsolescence and plant modernization, the C.I.T. Equipment Funding Plan is explained in detail and in simple manner in a booklet issued by Commercial Investment Trust, Inc., 1 Park Ave., New York, N. Y. Those responsibly associated with printing plants in the Graphic Arts may take advantage of the financial services of C.I.T. in the purchase of new equipment in amounts ranging from $5000 to $500,000. The text of the booklet is a composite statement of discussions of the C.I.T. Equipment Funding Plan with several hundred prospective equipment purchasers. "In presenting this Fifth Plan," it is stated, "it is only natural that it should be compared with the four older financing methods. . . . *Five Ways To Buy Equipment* presents them all for the consideration of business men." Copies of the booklet may be obtained by communicating with the firm at the address given above.

Within the past year, better ighting conditions for all departments in the printing plant have been given serious consideration by plant executives because of the scientific study made by the Illuminating Engineering Society. Here is an example of artificial skylight for lighting the imposing stone in composing rooms. The flashed opal glass is lighted to a low uniform brightness by lamps within the boxes. Fresh-proofed type stands out clearly and sharply against the reflection of the large luminous area in the brighter type-metal background. Originally designed for this service as a result of the study of the printing industry by the Illuminating Engineering Society, this type of unit is finding application for many other seeing tasks.

Cold Top Enamel

By HARRY CROSBY*

Coated plates should be kept away from surrounding atmosphere and at low temperature

ALTHOUGH cold top enamel is at the present time regarded as the best acid resist for newspaper engraving, and is, in this country, at least, in almost universal use, there are certain disadvantages which render it not entirely reliable at all times. Certain changes that occur in the solution itself, particularly during the warm and humid summer months, cause particular difficulty. Changes in viscosity or thickness of the solution are common causes of trouble, particularly where automatic whirlers are in use and the speed at which the plates are turned cannot be continually varied. The behavior of the solution under certain conditions of aging, temperature, etc., are often directly the opposite of what is expected.

Without exception the greatest difficulties appeared when the relative humidity was between 80% to 90% of saturation. The greatest proportion of trouble occurred on the lobster shift, from 2:30 a.m. to 7:30 a.m. This was the period when the temperature was dropping to a lower level than at any time during the day, and the percentage of humidity was rising with a corresponding rapidity.

At such times printed plates either failed entirely to develop, the coating adhering to the unexposed as well as to the exposed portions of the plate, or additional time was required in the developing bath, resulting in a hard, thin and in some cases, a porous print.

It was apparent that some change had occurred in the coating of the plate, but the nature of the change was, and still is, as far as we are concerned, a matter of conjecture. The more credible possibilities seemed to be either:

1. That the sensitizing agent had become active before printing and had hardened the coating on the whole surface of the plate, or
2. That some change in the shellac solution itself, independent of the bicromate, had rendered it much less soluble in alcohol.

Our object is to find ways and means to prepare in advance metal that will be workable for a reasonable length of time with the assurance that it will be printable when used, and eliminating the necessity of coating each plate immediately before printing.

In our first attempts we essayed to attain this and by variation of the different substances in the solution. We tried the substitution of different sensitizers, of different alkalis for ammonia, of different solvents for shellac, and of different gums, not in place of shellac, but in various combinations with shellac. We tried innumerable variations in the proportion of each different ingredient. We tried the introduction of chemicals to retard oxidation, and of others designed to hasten reaction. All this yielded us no better cold top, either in respect to its keeping qualities or immediate performance.

We had at our disposal an air-conditioned room and introduced plates and attempted by regulating the humidity and temperature to discover which had the greater effect on the coated surface.

The maximum life of the plate, about 18 hours, was attained with a low temperature and a moderate degree of relative humidity. The lowest temperature we could

*Photoengraving Superintendent, The Daily *News*, New York, N. Y. Abstract of paper presented at A.N.P.A. Mechanical Conference, Chicago, June 7, 8 and 9, 1937.

DAYCO ROLLERS STAND THE GAFF

This newspaper pressroom superintendent says: "Dayco Rollers stand the gaff. Look at these. Just as good as new—and they've run every day, summer and winter."

You can have any degree of plasticity you want in Dayco "Stayput" Newspaper Rollers and still get extraordinary service out of them.

Dayco Rollers are not affected by heat or humidity. They do not absorb inks or oils. They do not change in size, contour, or consistency. This practically eliminates readjustment and greatly postpones the need for reconditioning.

Long beyond the lives of other rollers, Daycos retain their accuracy and inking efficiency. When at last a Dayco Roller needs rebuilding, a new surface can be put on the original base at small cost.

Ask us to have a representative study your requirements and meet them with Dayco Rollers which are specifically built for you.

And remember, there is only one patented, renewable surface roller—DAYCO! Insist upon the genuine.

THE DAYTON RUBBER MANUFACTURING CO.
Newspaper Division, Dayton, Ohio.

Dayco
THE ORIGINAL SYNTHETIC (D) RUBBER NEWSPAPER ROLLER
THE ALL-PURPOSE ROLLER FOR FORM, DISTRIBUTOR, DUCTOR, ETC.
COPYRIGHT, 1937, THE DAYTON RUBBER MFG. CO.

FOR 25 years the Imperial Type Metal Company has made it possible for your plant to have the advantages of low drossing, lower temperatures and lowest yearly metal costs. The Imperial Plus Plan operates continuously to keep your metal supply in balance at all times. Metal in balance casts at lower temperatures than the metal supply that depends on infrequent addition of expensive toners.

The amount of dross (waste) formed on a metal supply increases the higher the casting temperature goes. The lower temperatures of a Plus Plan controlled supply result in low drossing and better quality.

Perfect balance, lower temperatures and low drossing mean much less metal trouble . . . less lost time . . . lower fuel bills . . . fewer run-overs or recasts. Together these results of perfect balance add "down" to lower yearly metal costs.

Avail yourself of the advantages of the Plus Plan. Get the complete picture from an Imperial service man of the savings possible when you use

Imperial

IMPERIAL TYPE METAL CO.

Philadelphia • New York • Los Angeles • Chicago

obtain was about 60 deg. F., and the minimum percentage of relative humidity at this point was about 50%. The increase of either temperature or humidity perceptibly shortened the period of the plates' printability. Reaction sets in after a period of less than 15 minutes and is rendered imprintable in less than two hours. At a reading of 90 deg. and 90% humidity it was less than two hours.

Three experiments which we worked out in the *Daily News* laboratory may be summarized briefly as follows:

In the first experiment we coated plates in the usual manner. For the purposes of the experiment we created an atmospheric condition of temperature of 86 deg. with relative humidity at 89 per cent. We fixed the printing time at 3 min. and the developing time at 4 min. at a temperature of 80 deg. F. Each of the four plates were removed from the developer at 24 hour intervals. Progressive difficulty was had with each in developing usable prints and they were discarded as unusable. The important conclusions are (1) Extraction of moisture from the air surrounding the plates retards any premature reaction that may take place, and (2) Some changes take place that humidity control alone does not stop and the occurrence of these changes renders this method of preserving plates inadequate.

Results of Second Experiment

In the second experiment, the developing bath was 90 per cent alcohol and 10 per cent water with suitable quantity of Methyl Violet DXX dye for proper color. Developing was done at 88 deg. F. Four plates were coated as usual and whirled in automatic whirler. Each of the plates was removed at 24, 48, 72 and 96 hour periods. Swelling or rolling away of unexposed portions of the print was less pronounced than usual in the first plate. Development difficulties were encountered with each of the remaining plates so that the 96-hour plate failed to develop at all.

The Third Experiment

In the third experiment the coated plate was cut into twelve small pieces, each 3 in. by 7 in. These were wrapped loosely in brown paper in bunches of two each and placed in the ice box. The first two were removed and printed after 18 hours and the remaining plates two at a time at intervals of 24 hours. Before printing, the plates were placed in an electric oven, for periods ranging from 10 min. to 1 hr., at 100 deg. F. to dry them of precipitated moisture from the air caused by removal from the cold temperature of the refrigerator and to heat them to room temperature to avoid further precipitation of moisture. Printing was done with standard arc lamp at 40 in. distance. Print development was done in a bath of 90 per cent alcohol and 10 per cent water. Developing time, 4 min. at 80 deg. F. Results of this experiment showed all plates identical with freshly coated plate.

Conclusion

It is my opinion that much experimental work must be done before we can overcome difficulties with this material. These experiments seem to prove that it is necessary under adverse conditions to keep coated plates where they will not be subject to the surrounding atmosphere. It is also necessary to keep them at as low a temperature as possible at all times.

CHURCH RECEIVES AWARD

L. R. Church, typographer Akron (O.) *Beacon-Journal*, recently received an honorable mention in an ad-writing, ad-setting contest conducted by a Chicago type foundry.

Equipment

(*Continued from Page 31*)

on both models and caster locks on the Model EK8. Model EK8-P has an 800 lb. fast heating and insulated valve controlled melting pot.

It is stated by the manufacturers that these machines are the result of three years research and testing both for new mechanical ideas and new operating ideas in the trade.

Descriptive matter has been prepared and may be had by writing to Hammond Machinery Builders, Inc., direct or in care of *Printing* EQUIPMENT *Engineer*.

P-Double-E File No. 2G6.

METROS WITH ITALICS

C. H. Griffith, vice president in charge of typographic development with the Mergenthaler Linotype Company, announces that Metrolite No. 2 with Italic, Metromedium No. 2 with Italic, and Metroblack No. 2 with Italic may now be had in two-letter matrices in the 18 and

Modern Man Cann
Modern Man Cann

24 point sizes. All three of those weights of Metro, each with its own Italic, may now be had in all sizes from 6 to 24 point.

The roman of all three weights may be had for the All-Purpose Linotype in all sizes from 6 to 144 points.

Here is a brief showing of the 18 point size of Metroblack No. 2, with its own italic, cast from two-letter matrices.

Aquatex Dampening Roller Covering

Working with the co-operation of Philadelphia lithographers, the Godfrey Roller Company has developed "Aquatex," the seamless tubing for covering dampening rolls on offset and lithographic presses.

View of dampening roller covered with Godfrey Roller Co.'s new seamless Aquatex covering on a press in a Philadelphia printing plant.

This new product has been on the market for about eight weeks.

The following claims are made for Aquatex: Being a seamless material, it will give a more even distribution of water; it may be applied by merely pulling the Aquatex over the roller base and securing the ends; a roller may be covered inside of three minutes, as there is no sewing or stitching; Aquatex will not give off fuzz or lint on the plate or on inking rollers, and being made of a continuous thread it has no ends.

Further information may be secured from Godfrey Roller Co. direct or in care of *Printing* EQUIPMENT *Engineer*. *P-Double-E File No. 2D26.*

The

PHOTO-ENGRAVER GOT A "BREAK"

HE HAD been taking a lot of criticism that he thought belonged elsewhere. Then for a fortnight he noticed that his halftones were showing up better in the paper.

"Yes," admitted the stereo foreman, "I decided to experiment a little and have been using Certified Mats lately. Looks like I might use them for quite a while. I guess those engravings we kicked about weren't so bad after all."

For dependable stereotyping, rely on Certified Mats, made in the U. S. A.

CERTIFIED DRY MAT CORPORATION

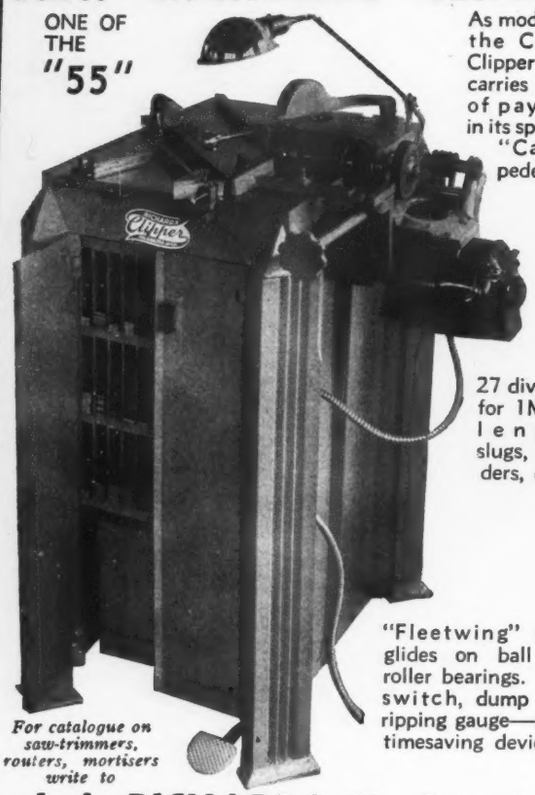
9 Rockefeller Plaza, Dept. M.
New York, N. Y.

Certified
DRY MATS

NEW RICHARDS CLIPPER

ONE OF THE "55"

As modern as the China Clipper and carries a ton of pay load in its spacious "Cabin" pedestal.



27 divisions for 1M full length slugs, borders, etc.

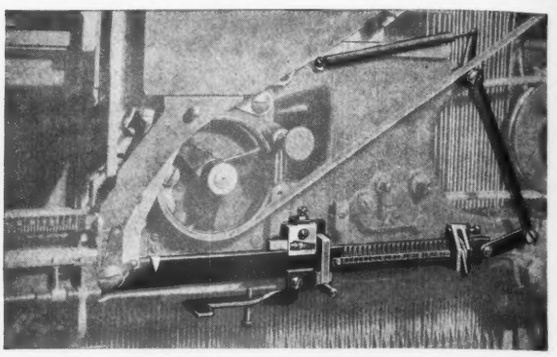
"Fleetwing" table glides on ball and roller bearings. Foot switch, dump cart, ripping gauge—every timesaving device.

For catalogue on saw-trimmers, routers, mortisers write to

J. A. RICHARDS, *The Sawmaker*
KALAMAZOO . . . . . MICHIGAN

Assembler Slide Brake and Bracket

A newly-designed assembler slide brake and bracket has been announced by the Linotype Parts Company. The new device is applicable to Linotype machines. The slide itself is of the usual size and shape. A ball-bearing brake mechanism is employed to control the position of the slide while matrices are being assembled. The ball bearing is held in place above the slide by a spring. When it is desired to return the slide to normal

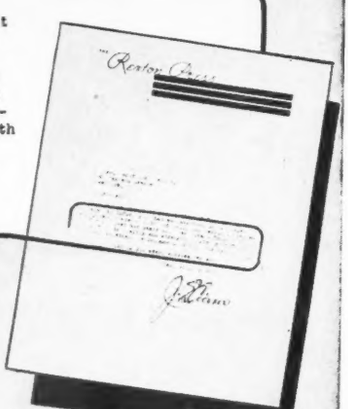


position, pressure upon a brake tripping lever permits it to move to the right. A tight-line release is provided with the slide supporting bracket. The top of the tight-line release which is contacted by the assembler slide clamp adjusting screw is provided with a screw which can be replaced when the banking point of the tight-line release is worn. When the slide or its support have worn enough that the slide sags out of horizontal line, an adjusting screw may be turned to take up the wear. Manufacturer states the ball-bearing brake insures smooth operation of the slide without chatter.

P-Double-E File No. 1G8.

"10 YEARS"

"we wish to inform you that we have been using Riegel Tympan papers on both our Kelly and Vertical presses for the past ten years and have always found them uniform in quality and strength in giving us first-class service. We recommend it very highly."



TREATED JUTE— The old reliable. Its tough jute fibres stand up under the longest runs. Stocked in roll widths for every press.

CERTIFINE — A low-priced tympan with a hard, even surface and exceptional strength. Ideal for short-run job work. Nationally stocked in roll widths for every press.

CLIP THIS AD For Free Trial Sheets. State Size and Press.

DRUMHEAD — Save time, temper and money with this ready-cut and scored topsheet of the finest treated jute. Sold by leading paper merchants in sheet sizes for high-speed presses only.

RIEGEL TYMPANS

RIEGEL PAPER CORP., 342 MADISON AVE., NEW YORK, N. Y.

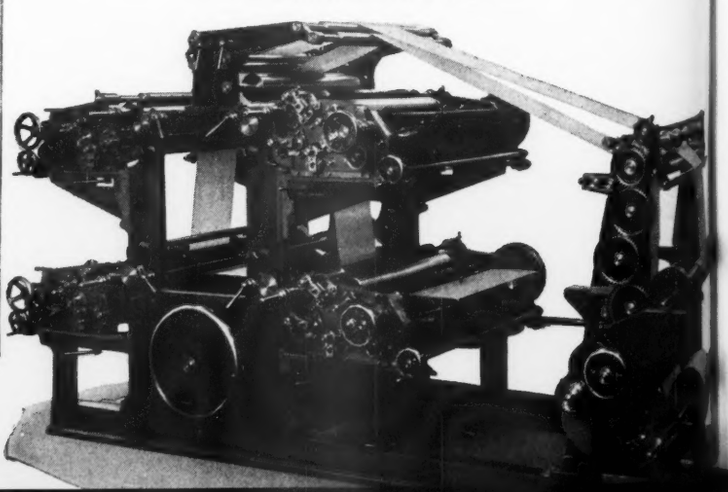
Multi-Color Press

H. H. Heinrich, Inc., is sponsoring a high-speed printing press and rewinder, designed for variable sizes, to print from both rubber and metal printing plates. The machine can be installed as a two-color unit. Later on, it can be converted into a three- or four-color machine. The printing units can be arranged to print both sides of the web in one operation.

The printed web can be run into a standard Heinrich sheeter instead of rewinding to produce sheets printed on both sides in multi-color at high speeds. The pigment ink printing units can be replaced by aniline printing units, or a separate aniline printer can be interconnected, the latter combination producing printed matter in as many as eight colors, in both pigment and aniline inks, all in one operation.

It is stated that this machine will handle any kind of paper, from ordinary newsprint or kraft paper to the finest cellophane or foil. Machines of three different widths are available—20-in., 32-in. and 40-in, with variations of printing depths of from 11½-in. to 29½-in.

P-Double-E File No. 5LL.



FLEX DRY MATS

For better dry mat performance, and particularly for better reproduction of halftone and Ben Day screens, try **FLEX** dry mats. **FLEX** dry mats will, we believe, enable you to turn out better, more uniform plates, in less time and with less trouble.

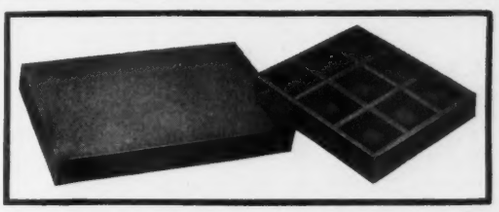
Sending for samples of **FLEX** dry mats will not involve the slightest obligation on your part. Please mention gauge and shrinkage, kind of casting equipment, and how many casts per mat.

FLEXIDEAL DRY MAT COMPANY
21 West Street New York

Don't keep the Stereotyper Waiting!

USE - - -

Challenge "Sta-Rite" Newspaper Bases



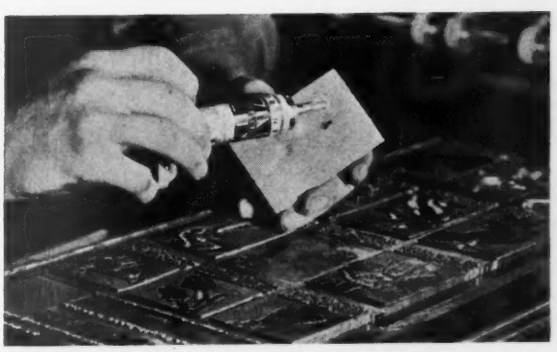
● Fill up the form in a hurry—throw in the required sizes of Challenge "Sta-Rite" Bases—lay unmounted electrotypes, halftones, or zincs on top (no hooks or catches necessary)—give the quoin key a final twist—and you re ready to go!... Made from fine-grained steel alloy castings with utmost precision, these bases may be had solid or cored, as specified. They will not dent or bruise and are not injured by tight locking or heat. Accurate, rigid, non-shrinkable, and indestructible, they are a permanent, time-saving, cost cutting addition to the equipment of any shop. The cored bases are lighter in weight, and the strong ribbing on the under side of the base provides a positive support that will not allow plates to "give" or sag under the heaviest pressure. Write today for complete descriptive data. Without obligation to you.

THE CHALLENGE MACHINERY CO.
GRAND HAVEN, MICHIGAN
CHICAGO S-144 NEW YORK

Use It Sparingly!

To get the fullest adhesive properties of Booth's Zink Cut Cement use it sparingly and according to directions. If too much is applied to the cut, the cement may ooze out from between cut and base and pull the mat fibres when a plate is cast. Another reason for using it sparingly is that you will be taking advantage of the economy offered by Booth's Zink Cut Cement by making it fasten a greater number of cuts to bases.

ZINK CUT CEMENT PRICES in the U. S. and Canada: 75c per large tube; $6.00 per dozen tubes; $5.00 per dozen tubes in gross lots. Stand-A-Lone Holders 2 for 25c, per dozen, $1.00.



Booth's Green Rubber Keyboard Rolls

Have you tried them? Concentric from end to end. Resilient as a roll should be for line-casting machine keyboards.

Crepe finish or Corrugated Cam Tread, as you choose. $1.30 per pair. $7.00 per dozen. 55c each in lots of 100.

E. A. BOOTH RUBBER COMPANY
364 ROCKEFELLER BUILDING • CLEVELAND, OHIO

CHALLENGE
LABOR-SAVING IRON FURNITURE

Lives Up to Its Name

. . . and it lives forever—saving time day after day, year after year. Constructed from highest grade, fine-grained castings, it's rigid and sturdy. Finished to point system accuracy . . . true as type itself . . . it stays that way under severest heat or tightest lock-up. Defies dents and bruises.

Light weight, handy to handle. Cross braces provide extra strength and convenient finger hold for lifting. Write for font schemes and data.

The Challenge Machinery Co.
GRAND HAVEN, MICHIGAN
CHICAGO, 17 E. Hubbard St. — 200 Hudson St., NEW YORK

278

Rouse Band Saw

CUTS A FULL GALLEY OF SLUGS IN 35 *Seconds*

The ROUSE Band Saw takes the slugs as they come from the machine, a galley at a time, automatically selects lengths, and cuts them to variable measures as if by magic.

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The ROUSE Band Saw is essential equipment for newspapers and large job plants. It is easy to install. No expensive linotype changes are necessary. There are two sizes. Write for prices and circular.

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BAUER PRESENTS LEGEND

The Bauer Type Foundry, Inc., has announced a new series of foundry type which has been named Legend. Sponsors state "The touch of the artist's hand has been retained even into the smallest details in reproducing the original design into type form. This human element renders

Grand Morning Concerts

Puerto Rico

to the type a certain something which might be expressed in the words 'individual personality,' and possesses all the desirable qualities of a good display face because of sufficient strength, vividness, interesting appeal and marked freshness. Legend is at its best when employed with liberal white space and a minimum of detracting elements like borders, etc."

New Types of Hose

Two new types of tank truck hose have been developed by The Goodyear Tire & Rubber Company, Inc. Style BH tank truck hose is constructed without wire insertion, and is known as the "soft type." A wire braided in the body of the hose affords a ground for the dissipation of static. Style BH hose is suitable for tank trucks, tank cars, or loading rack service.

The other type of hose, known as style WWR Tank Truck Hose, differs from style BH in that it has a woven-wire filler reinforcement. The special method of weaving the wire into the seamless woven jacket prevents the hose from kinking or collapsing and, if crushed, it is claimed that the hose can be rounded into shape without damaging it or reducing its life.

Patent Issued to Ipi

A patent for quick-drying printing inks has been issued to The International Printing Ink Corporation, protecting a line of inks described as "substantially non-drying at room temperatures but which dry instantly when the printed matter is heated."

These inks have been marketed under the trade name Vaporin, a speed-printing process incorporating inks which dry by vaporization rather than by oxidation. In Vaporin printing, special heaters are used which instantly vaporize the volatile portion of the ink solvent, leaving a relatively dry printed surface.

It is asserted that this method makes possible cleaner, sharper printed impressions and considerably increased press speeds. Since the printed surface dries in an instant, penetration is minimized, and the ink is less inclined to spread or smear. The quick-drying feature also helps to eliminate offsetting and smudging. Tympan rolls are unnecessary with this process.

Vaporin, states its manufacturer, is being used extensively for web press applications, printing all types of periodicals and various bags and containers. Press speeds up to 750 ft. per min. have been attained with this process in the magazine field. Because Vaporin-printed material is dry when it leaves the press, it is possible to feed printed containers directly into folding, sealing or other processing machines.

The patent issued (U. S. No. 2,087,190) contains 15 claims covering various types of fast-drying inks. It calls attention to the fact that the process and inks described are adaptable for printing upon paper and other surfaces such as cellophane, textiles and metallic surfaces.

Inks in colors as well as black inks are included under the patent. Stress is laid on the fact that inks do not

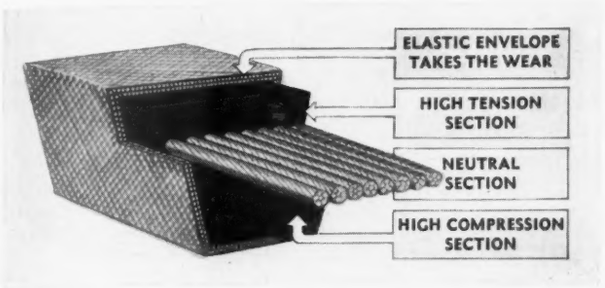
necessitate the admixture of driers, do not harden on the rollers or plates, and yet are capable of being dried very quickly after printing when subjected to suitable temperatures. The resultant print is described as being flexible and resistant to rubbing.

Other patents and pending patent applications cover other phases of the Vaporin process and equipment, such as the Selas heating units developed for Vaporin printing.

New Multiple V-Drive Belt

Hailed by designers as the closest matched multiple V-drive belt yet achieved, the new E-C Cord Multi-V Belt has been announced by the Goodyear Tire and Rubber Co.

Precision-built, the close matching of the belts used in multiple, it is pointed out, equalizes the strain and



load-carrying on all the belts of the assembly, prolongs their life, and produces a better and more efficient drive.

The load on the new belt is carried entirely by a layer of heavy, low-stretch, high-tensile cord, placed in a neutral section between rubber high tension and high compression sections. Surface wear is taken by an elastic fabric envelope with the weave on the bias. Such construction, along with close matching, designers say, make the E-C Cord Multi-V Belt the best Goodyear has ever produced.

Wayco Overlay and Bumper Compounds

Wayco Manufacturing Company furnishes two compounds known as Overlay and Bumper. The Overlay Compound is used for making mechanical overlays used on proof presses by engravers and on printing presses. The Bumper Compound is used for bumping halftones for newspaper work.

A bumper underlay can be made in from 3 to 5 min. The time required to follow through for making a bumper stereotype takes approximately 10 min. Best results are obtained from 0.050 in. zinc halftone plates.

The making of the bumper underlay is skeletonized as follows: A proof of the cut to be bumped is taken with a generous amount of ink so that the solids will take a full amount of the ink and yet avoid letting the highlights take it. The compound is applied to the proof which has been taken and excess compound rolled off the sheet. A dry powder is then applied to the compound which adheres to the proof. The sheet is then heated until the compound adheres firmly. A second proof of the same plate is pasted on top of the first sheet. The bumper underlay (both sheets) is then pasted in register on the back of the zinc halftone plate. The plate with the bumper underlay patched on it is now placed on a steel plate and subjected to pressure in a stereotype matrix rolling or direct pressure machine to bring the solids in relief. The plate is now ready to mold.

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Blue Ribbon "Ad" Mat

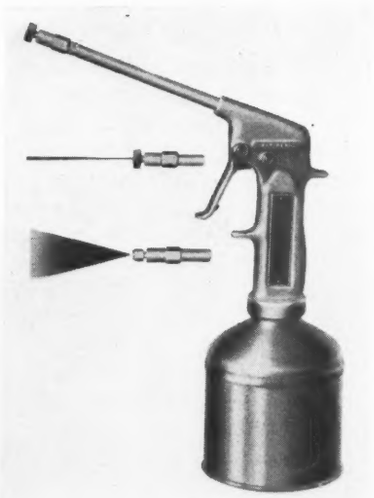
Silvertone Process Corporation, a subsidiary of Certified Dry Mat Corporation, announces development of the Blue Ribbon "Ad" Mat which is to be dried on the form. The characteristics of the mat are such that it molds softly and easily. It is said to take a deep, sharp impression and retains it. It may be molded either under direct pressure or under the regulation roller, but must be dried on the form either in the press or by transferring to the steamtable.

Blue Ribbon mats are made especially for hot molding, *i.e.*, they must be dried on the form. They may be molded under direct pressure and dried in the press, or transferred for drying to the steamtable, or they may be molded on a regulation roller and transferred to the steamtable. The new mats are blue in color.

P-Double-E File No. 2G18.

Ink Softening Spray Gun

The DeVilbiss HWA Spray Gun, originally designed for the automotive service field, it has been found, has an application in the printing industry. Last year, a printer, in an effort to find a method of applying a softening solution to ink rolls, tried the DeVilbiss gun.



View of DeVilbiss Gun for Softening Ink on rolls. Spray can be regulated.

Since then many printers have adopted this gun as standard press equipment. The DeVilbiss gun is adapted for applying this solution. It is built to handle light lubricating liquids, requires no compressed air or additional equipment.

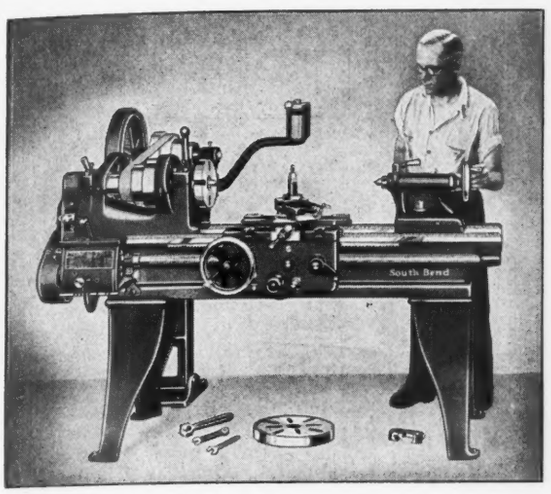
Adjustable Motor Drive Lathes

The South Bend Lathe Works announces a new design of back-geared, screw cutting, precision lathes in the Pedestal Adjustable Motor Drive. The new drive is available in the five sizes of Lathes—9 in. to 16 in. swing, and in bed lengths from 3 ft. to 12 ft.

The pedestal adjustable motor drive mechanism is a separate unit with the motor and countershaft mounted on a pedestal back of the lathe in a position horizontal with the headstock cone pulley of the lathe. Power is transmitted from the motor to the countershaft by V-belts, and from the countershaft to the lathe spindle by flat leather belt. The reversing switch is located near the lathe spindle and permits the operator to start, stop or reverse the rotation of the lathe from the working position.

A belt tension release lever permits easy shifting of the cone pulley belt from one step of the pulley to another.

The new line of Pedestal Adjustable Motor Driven Precision Lathes have a number of new features and improvements, the most outstanding of which are: Heat-treated headstock spindle with all bearing surfaces hardened and ground, including the taper hole; spindles are special alloy steel, with phosphor bronze bearings, line bored and lapped and adjustable for wear; new



double wall apron with self-oiling steel gears, and all gear shafts supported on both ends; a multiple disk friction clutch in apron.

Attachments can be provided for milling, key way cutting, grinding, turning tapers, draw-in collet chuck work, gear cutting, etc.

These lathes are built in both the quick change gear and standard change gear types.

The company has issued a new series of bulletins. Any reader interested in securing free copies may write the Technical Service Department, South Bend Lathe Works direct or in care of *Printing* EQUIPMENT *Engineer*.

Test Light and Fuse Puller

An insulated Test Light and Fuse Puller is being supplied by the Ideal Commutator Dresser Company, 4016 Park Ave., Sycamore, Ill. The tool is constructed of reinforced bakelite shaped just like a pair of pliers. The jaws of the puller, like pliers, are shaped to grip the fuse which is to be extracted and replaced in the panel board clips. A test light is enclosed in one of the puller handles to guard against breakage. At the end

Test Light and Fuse Puller for testing, removing and replacing fuses in the printing plant.

of each handle a metallic pin protudes. These pins or handle extensions can be used to find out which fuse is burned out by placing them against opposite clips. The Test Light and Fuse Puller is available with or without flexible leads. In most printing plants, however, the tool would be used without the flexible leads. Pocket size or can be kept in tool chest.

The Test Light and Fuse Puller, besides being used for testing blown fuses from 30 to 100 amp. capacity, is useful in testing condensors, resistors, r.f. peaks and wave length and polarity.

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Artes Graficas, San Antonio, Texas.
Plain Dealer Publishing Co., Cleveland, O. (5)
Nashville Banner, Nashville, Tenn. (2)
Wetzel Bros. Printing Co., Milwaukee, Wis.
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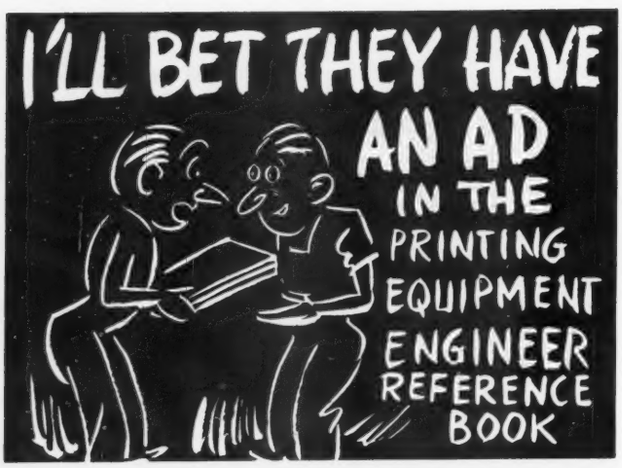

Patents

(*Continued from Page 40*)

2,093,228. DELIVERY MECHANISM FOR PRINTING PRESSES. Howard M. Barber, Pawcatuck, Conn., assignor to C. B. Cottrell & Sons Company, Westerly, R. I., a corporation of Delaware. Application November 14, 1935, Serial No. 49,683. 10 Claims. (Cl. 271—68.)

1. A sheet delivery comprising a delivery pile, a horizontally disposed traveling endless carrier having spaced sheet advancing devices, a second horizontally disposed traveling endless carrier located beneath the first named carrier and having spaced sheet supporting surfaces, a sheet tail end engaging device, and means for causing it to engage the tail end of the sheet, stop its travel and to release the sheet.

2,093,233. ROTARY FOLDING MECHANISM FOR PRINTING PRESSES. Edmund W. Dean, Battle Creek, Mich., assignor to Duplex Printing Press Co., Battle Creek, Mich. Application May 14, 1936, Serial No. 79,697. 10 Claims. (Cl. 270—77.)

1. In a folding apparatus the combination of a frame, a rotary folding cylinder journaled in the frame and having an axial bore, plates on the ends of the cylinder for rotation therewith about the axis of the cylinder, the plates carrying rotary tucker blades in fixed relation to one another, arcuate slots in the plates, headed studs on the ends of the cylinder extending through the slots and holding the plates on the cylinder in movable frictional contact with the ends, a shaft in the cylinder substantially parallel to the axis, gearing between the shaft and the plates for angularly adjusting the position of the plates with reference to the cylinder, a gear on the shaft having oblique teeth, a second gear in the cylinder journaled on an axis at an angle to the shaft, the second gear having oblique teeth in mesh with the teeth of the first gear, whereby rotation of the second gear rotates the first gear, a control rod in the axial bore in the cylinder and extending therefrom and having rack teeth thereon engaging the second gear for rotation, and having seats at its outer end for engaging shifting means, and shifting means screw-threaded in the frame and swiveled on the outer end of the control rod and engaging the seats for shifting the rod axially in the bore, whereby the position of the plates may be adjusted while the cylinder and the plates are rotating.

2,093,234. ROTARY FOLDING MECHANISM. Edmund W. Dean, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich. Application August 13, 1936, Serial No. 95,761. 5 Claims. (Cl. 270—77.)

1. In a folding apparatus the combination of a frame, a rotary folding cylinder journaled in the frame and having an axial bore, plates associated with the cylinder for rotation therewith, the plates carrying rotary tucker blades, a shaft in the cylinder substantially parallel to the axis, gearing between the shaft and the plates for angularly adjusting the position of the plates with reference to the cylinder, a control rod in the axial bore in the cylinder and extending therefrom, a shifting means screw-threaded in the frame and swiveled on the outer end of the control rod for shifting the rod axially in the bore, connecting means connecting the shaft and the control rod in such manner that axial movement of the control rod rotates the shaft, a wide faced worm gear having a flat face and fixed on the shifting means, a reversible electric motor mounted on the frame, a worm driven by the motor and in mesh with the worm gear, and switch means to control the motor for driving the worm in either direction.

2,093,235. ROTARY FOLDING MECHANISM. Edmund W. Dean, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich. Application August 13, 1936, Serial No. 95,762. 6 Claims. (Cl. 270—77.)

1. In a folding apparatus the combination of a frame, a rotary folding cylinder journaled in the frame for rotation, plates associated with the cylinder for rotation therewith, the plates carrying rotary tucker blades, a shaft in the cylinder substantially parallel to the axis, gearing between the shaft and the plates for angularly adjusting the position of the plates with reference to the cylinder, means to automatically shift the plates under control of the speed of rotation of the cylinder, comprising a crank arm on the shaft, an arm pivoted in the cylinder at a point spaced from the shaft and having a free end movable toward or away from the periphery of the cylinder, a weight on the free end of the arm, a link having one end pivoted to the free end of the pivoted arm and the other end pivoted to the free end of the crank arm, a spring surrounding the shaft having one end fixed to the cylinder and the other end fixed to the shaft, and being so disposed as to tend to rotate the shaft to oppose movement of the weight toward the periphery of the cylinder caused by centrifugal force during rotation of the cylinder and to advance the plates relative to the direction of rotation of the cylinder.

2,093,253. ROTARY FOLDING MECHANISM. Godfrey H. Schmidt, Battle Creek, Mich., assignor to The Duplex Printing Press Company, Battle Creek, Mich. Application June 11, 1936, Serial No. 84,721. 3 Claims. (Cl. 270—77.)

1. In a folding apparatus the combination of a frame, a rotary folding cylinder journaled in the frame and having an axial bore, plates associated with the cylinder for rotation therewith, the plates carrying rotary tucker blades, a shaft in the cylinder substantially parallel to the axis, gearing between the shaft and the plates for rotatorily adjusting the position of the plates with reference to the cylinder, a crank arm on the shaft, a control rod in the axial bore in the cylinder movable axially and extending therefrom, a bell crank pivoted in the cylinder on an axis at right angles to the axis of the control rod, a slotted connection between the inner end of the control rod and one end of the bell crank, a link having one end swiveled to the other end of the bell crank, the link having its other end swiveled to the free end of the crank arm, and means on the outer end of the control rod for shifting the control rod axially in the bore while the cylinder is rotating, whereby the position of the plates may be adjusted while the cylinder and plates are rotating.

Miscellaneous:

2,090,869. TYPOGRAPH NUMBERING MACHINE. Arthur P. Karbach, Jr., and Dallas R. Trinkle, Oakland, Calif., assignors to Naomi J. Osborn, as trustee. Application November 20, 1935, Serial No. 50,719. Renewed January 26, 1937. 11 Claims. (Cl. 101—88.)

1. In a machine a plurality of chains, means for supporting the chains in a side by side relation, each of the chains including separate numeral printing links from 0 to 9, means for keeping the chains taut, and means for rendering the chain in any order inoperative to print temporarily.

2,092,568. SHEET TRANSFER FOR BRONZING MACHINES. Frank R. Belluche, Racine, Wis. Application December 21, 1935, Serial No. 55,594. 9 Claims. (Cl. 91—62.)

1. In combination with a pair of cylinders having grippers adapted to clamp a sheet thereto whereby the sheet is movable therewith, means for actuating the grippers to transfer the sheet from one cylinder to the other, and means on one of the cylinders for holding the sheet thereto by frictional engagement with the sheet during the actual transfer of the sheet from the cylinder to the other cylinder.

2,093,142. CALCULATING APPARATUS FOR USE IN PRINTING. James D. Bolongaro, Charlottesville, Va., Application November 27, 1934, Serial No. 754,970. 7 Claims. (Cl. 235—61.)

1. A device for calculating the number of lines that would be occupied in a particular printed medium by irregularly sized lines of typewritten matter in a typewritten manuscript, comprising in combination, a support for the manuscript, a scanning device associated

with the support, mechanism for sweeping such scanning device across the support to scan the letter spaces in each line of the manuscript, means controlled by the mechanism to move through the same number of unit distances as the number of typewritten letter spaces which the scanning device traverses in one direction, cooperating instrumentalities controlled by the means and arranged to translate the number of unit distances through which the means moves into the number of printed lines of the predetermined size and length to be determined, and a counting device operated by the instrumentalities to register the number of the predetermined printed lines.

OVER 700 SPECIMENS

A catalog showing Linotype, Intertype, Ludlow, Monotype, Bauer, American, Continental and Foreign type faces has just been issued by the Western Typesetting Company of Kansas City.

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Trade customs are illustrated and explained in a complete section that covers the subject in a brief but inclusive manner.

Indexing of the book by type names, type numbers and alphabet lengths make its 741 type faces and sizes, 600 borders and ornaments and many make-up accessories quickly available to the "rush harried" compositor and advertising man.

BLOTTER TECHNIQUE

The September issue of *Print*, published by The Wrenn Paper Company, Middletown, O., contains two articles on the technique of planning blotters which should be of interest to all printing plant executives. One of the articles describes the utility of Wrenn's Instant Color Selector. The Selector consists of a number of die-cut sheets. The color chart provided with sixteen colors is made up in such a way that it can be placed under each sheet of blotting and the colors will show through cut-outs in the blotting itself. The idea is to help the designer select the correct color combinations. The other major article in this issue of *Print* is entitled "Doing Things With Type and Rule Makes Sales Blotter Layout Easy." The author states . . . "in spite of the thousands of stories published, there are only 36 basic plots or situations to draw upon in designing a blotter." The first six designs are reproduced with the article.

Copies of the Instant Color Selector will be sent to plant executives writing for it on their company's business stationery.

Awarded Cup

Fred Hudson, Mechanical Superintendent in charge of Hearst operations in Chicago, consisting of the Chicago *American* and *Herald-Examiner*, and the *American Weekly*, was awarded a cup and tendered a banquet recently for having supervised production of the finest printed papers in the Hearst organization.

Mechanical Superintendent Fred Hudson in charge of Hearst operations in Chicago and the cup awarded to him recently.

Through painstaking effort and close supervision Mr. Hudson has attained a standard of printing of sufficient merit to warrant presentation of the cup. Mr. Hudson is quite proud of the William Randolph Hearst Trophy for which there was considerable national competition among the Hearst executives.

175 Superintendents can't be Wrong

We are sure you will agree with us that 175 mechanical and pressroom superintendents in daily newspapers who are now using Fitz Livecork Press Blankets can't be wrong when they say they get more impression at less cost than they have ever received from any other blanket.

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Our patented process consists of mounting a steel band in place of the iron one. No welding, brazing, etc. Steel band withstands all the strains of use without cracking or breaking. The screw holes do not easily wear out. The central casting is trued up in the process and as it has by its prior use become seasoned, it is unlikely it will again ever warp. So in every way we believe the rebuilt disks are superior to new. Can arrange loans, exchanges, etc. Price for the rebuilding is only $30. Ask for one on examination and trial if desired.

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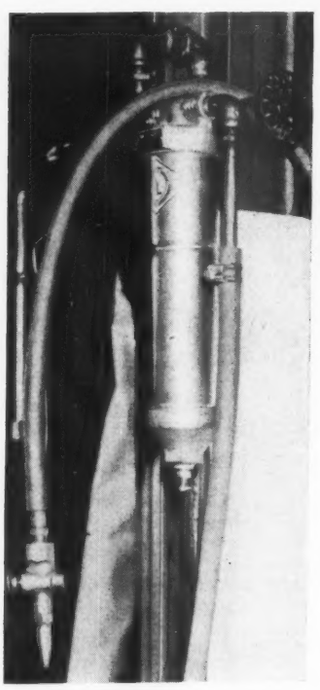
MOISTURE SEPARATOR

Moisture condensed into the compressed air supply is an undesirable element when the air is used in the printing plant for cleaning and drying purposes about machines or machine parts. On damp, muggy days it is almost impossible to prevent moisture condensation in the air supply unless some means has been adopted for eliminating the water. Opening the air line and letting it blow idle for a time is wasteful practice, to say the least. Quite often, too, the mere blowing off of the air line does not remove the moisture entirely.



DeVilbiss moisture separator attached to air line in Chief Machinists John Peecook's work room in plant of Cleveland *News*. Condensation is drawn off occasionally through valve at bottom of separator casing.

In Monotype-equipped plants, the moisture separators generally are a part of the compressing equipment. In many plants, however, where air compressing equipment is used, no provision has been made for a device to eliminate moisture from the air supply line.

The line-casting machinist has use for compressed air every day and it is important that the air be dry when cleaning magazines, keyboard parts or when removing metal chips from the machines. To encourage the frequent use of air by the plant machinist is to encourage better machine maintenance.

John Peecook, chief machinist of the Cleveland *News* composing room, has overcome this problem in the air line used in his machine room so that magazines, keyboard and other machine parts can be dried rapidly.

As is shown in the illustration, Mr. Peecook attached a DeVilbiss Type CC moisture separator directly in the air line near the work bench. The separator is fitted with ¼ in. inlet and outlet. There is a cock at the bottom for draining off the water whenever necessary. Forty pounds air pressure is maintained in the line. The hose leading from the separator is ½ in. high pressure fabric and rubber material. The nozzle is compressible to permit the flow of air when desired.

NOW WITH CHICAGO AGENCY

William Henderson, who has had some fifteen years' experience in the printing business and who for seven years has been operating and taking care of Linotypes in various Ohio plants, has been appointed Linotype demonstrator at the Chicago agency of the Mergenthaler Linotype Company.

In the August issue of *Printing* EQUIPMENT *Engineer*, the new building of the Youngstown *Vindicator* was described. Interior photographs of the mechanical departments arrived too late for publication. Shown in the illustration above is a general view of the *Vindicator* composing room. A fine feature of the composing room, and an important one, is the lighting arrangement. As will be seen in the picture, glass-steel fixtures are employed for general room illumination. Curtis light hoods are employed in those areas where direct or concentrated illumination is required. The new hoods furnish an abundance of light where it is needed directly over the ad alley banks and makeup tables without causing eye strain. Direct light glare is absent. Underneath each hood is fixed an inverted trough which carries the Mazda lamps, the light from which is directed upwardly to the hood and is reflected down upon the limited area which it is desired to illuminate. The ceiling and all overhead fixtures such as girders and pipes, are painted white. The general effect is that of daylight.

DIFFERENTIAL SPACING TYPEWRITER

Vogeltype Aligning Paper Corporation announces in the latest issue of *The Vogeltyper* the development of a differential spacing typewriter by International Business Machines, for which the former is a licensor. All controls such as carriage return, shift, etc., are electrically operated. The letter characters on the new typewriter are cut of variable widths setwise instead of being cut on the straight unit system as in present standard typewriters. A one-time carbon ribbon, 9/32 in. wide, is fed into a basket after it has been used in the machine.

An automatic justifying attachment which it is claimed will justify the right-hand margin automatically in the first writing operation has been designed, but it will be some time before it will be marketed in connection with the new differential spacing machine.

VARIED LIST OF COURSES

Thirteen courses relating to the Printing Industry will be given this Fall by the New York Employing Printers Association, Inc. The courses which are under the direction of technical experts and executives are designed for employees of printing plants, advertising agencies, newspapers and publishing houses who are concerned with production. The courses will include Advertising Typography, Applied Design and Layout (Elementary and Advanced); Cost Accounting (Elementary and Advanced); Offset Lithography; Elements of Printing Processes; Proofreading, Revising and Copy Reading; Estimating and Production Planning; Production Management; Public Speaking and Selling.

ANNUAL CALL FOR SPECIMENS

The decision of the A.I.G.A. to have this year's Commercial Printing Exhibition promoted from Chicago is based upon the desire to broaden the scope of the show as a whole. Members of the graphic arts in the West and Middle West have mistakenly become to feel that this show is primarily for the East. This condition is felt very keenly by the Directors of the Institute who wish to overcome this handicap.

The A.I.G.A. in its aims and purposes states very clearly that its purpose is to promote higher standards in the Graphic Arts. The Institute is national in scope and certainly deserves the support of everyone in any branch of the industry in the whole United States.

See page advertisement in this issue of *Printing* EQUIPMENT *Engineer* for details concerning specifications and conditions.

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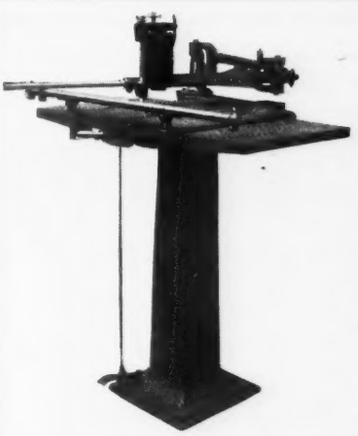

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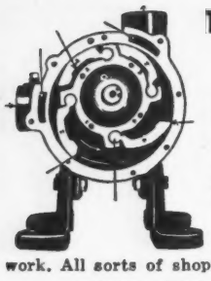

THE SUCTION THAT LIFTS THE PAPER IN ALL SORTS OF FEEDERS

They are also used for blowing to loosen up sheets of paper on a pile feeder, and we have strainers to prevent oil from spraying on the sheets.

The printer also uses these pumps for cooling linotype molds and for blowing dust out of the working parts of machine and out of type cases.

The electrotyper uses the air for agitating his plating solutions, and these pumps are found in almost every plant doing this work. All sorts of shops use them for all sorts of air using devices.

IDEAL FOR VACUUM PRINTING FRAMES

In the big shops, especially in the newspaper plants, these pumps operate the stereotype furnaces creating high heats with gas or oil as fuel.

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MAKERS OF GOOD MACHINERY 45 YEARS

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New book by authority on all phases of letterpress production for the practical pressman. Contains 248 pages, 26 illustrations and 24 charts. $3.00 per copy, cash with order.

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By CRAIG R. SPICHER

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By JOSEPH GOGGIN

This 256-page book conveys latest technical information and manipulating procedure. Written by a practical stereotyper. Price $5.00, cash with order.

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NEW INTERNATIONAL DICTIONARY
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Various Styles of Bindings
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FILES FOR REFERENCE

I appreciate being on the mailing list of *Printing* EQUIPMENT *Engineer* very much and derive a great deal of benefit from its contents. Many of the articles I have indexed and keep in my files for future reference.

Percy L. Phillips, Composing Room Foreman
Everett Waddy Company,
Richmond, Va.

Technical Literature

For October, 1937

1—*New Vogue Booklet*—"Vogue, the Star of Sans Serif Types," is the title of the most recent booklet published by the Intertype Corporation. The booklet is printed in two colors, 7½ by 10½ inches, and contains a comprehensive showing of the Vogue family in a complete scheme of weights and sizes including the Vogue Condensed, Lining Vogue, alternate characters, ligatures, advertising figures, grocery logotypes, and other Vogue accessories. *P-Double-E File No. 16.*

2—*Better Type for Better Printing from Baltotype*—Catalog issued by Baltimore Type shows specimens of type, handy box fonts, spacing material, leads and slugs, ornaments, borders and rules. *P-Double-E File Nos. 1EE, 1X.*

3—*Matrix Shears and Trimming Tables*—Folder illustrates and describes various types of matrix shears and trimming tables furnished by American Publishers Supply. *P-Double-E File No. 2G19.*

4—*Egmont Family*—Folder shows specimens of Egmont Light, Medium and Bold as furnished in matrix form by Intertype Corporation. Egmont Bold shown from 8 to 18 pt. *P-Double-E File No. 1G5.*

5—*C&G No. 3A De Luxe Model Saw-Trimmer*—Folder shows by means of illustrations the various operations which can be done on saw-trimmer. Other metal working equipment is illustrated on page 4. *P-Double-E File No. 1Z.*

6—*Blue Ribbon "Ad" Mat*—Folder announces Blue Ribbon "Ad" Mat which, when dried on the form is soft, is easily molded, takes a deep, sharp impression and retains it for newspaper ad work. *P-Double-E File No. 2G18.*

7—*Booklet on Copyfitting—Intertype Ready Reckoner* is the title of a new 16-page booklet recently issued by Intertype Corporation. This booklet shows the character count of all Intertype faces, from one pica up. It also contains tables from which the character count of any type face may quickly be computed. *P-Double-E File No. 1N.*

8—*Oilgear Fluid Power Pumps and Motors*—Oilgear's Fluid Power Pumps and motors are illustrated and described in a new 56-page bulletin No. 47000. Standard variable and constant displacement units are available in conventional sizes having normal capacities from 2 to 150 h.p. and peak capacities up to 190 h.p. Oilgear equipment is in use in the printing field and other industries. Construction, principle of operation and application of Fluid Power Pumps and Motors are fully described in Bulletin 47000. *P-Double-E File Nos. 2B11, 2D16, and 5CC.*

9—*Chronolog Booklet*—Describes three new models of Chronolog production control instruments, has just been published by The National Acme Company. Gives information on the use and operation of the Chronolog, claimed by the manufacturer to be the only instrument that keeps a running record of time and a count of pieces on the job—and prints this information on a chart that may be read like a typewritten report. A new line of super-sensitive line voltage switches and Namco Solenoids are described in the same booklet. *P-Double-E File No. 1H.*

10—*Monotype-Huebner Photo-Imposing System*—Folder illustrates precision equipment and describes practical method by means of which line color register can be obtained and step-and-repeat work can be done without the use of a photo-composing machine in offset work. Equipment includes M-H adjustable layout and register table, register chase and M-H all metal registering vacuum frame. Illustrated also is the

M-H vertical plate-coating machine. *P-Double-E File Nos. 2D14, 2D21.*

11—*10,000 Verticals*—Illustrated booklet printed on the 10,000th Miehle Vertical Press discusses the principal technical feature of the press and gives 10 reasons for 10,000 Verticals. Press specifications are also given. *P-Double-E File No. 5LL41.*

12—*Vandercook Proving Machines*—Thirty-two page catalog illustrates and describes various kinds and types of proving machines manufactured by Vandercook & Sons, for use by printers and engravers. The Vandercook Register Punch is also illustrated and described. *P-Double-E File Nos. 1V and 2E15.*

13—*Hammermill Cover Paper*—Sample book, 6 in. by 9 in. shows in five sections the various kinds of cover paper made by Hammermill. Each page is die cut and indexed for convenience. *P-Double-E File No. 3L.*

14—*Legend*—Folder shows characters in fonts, the different sizes and specimen settings of the new foundry type face called Legend.

Printing EQUIPMENT *Engineer,*
1276 West Third St., Cleveland, Ohio

Gentlemen: please send the literature checked above without obligation.

Name of Company.....

Attention of.....

Department Position.....

Firm St. Address.....

City.....State.....

SECOND ANNUAL CONTEST

More prizes, wider coverage, and other new features will characterize the Second Annual IPI Essay Contest on Color, according to an announcement made by the International Printing Ink Corporation. IPI will sponsor the project in cooperation with the National Graphic Arts Education Guild.

While the first contest was open only to high school sophomores, juniors and seniors, this 1937 competition will include ninth grade junior high school students and high school freshmen. To compete, students must be enrolled in a printing course, and must submit essays not longer than 400 words on "The Future of Color in Printing."

Letters explaining the contest in detail are being sent to teachers of printing in all parts of the country, inviting them to enter their students in the competition.

This year, the National Graphic Arts Education Guild is planning to build its annual Printing Education Week program around the IPI contest. The contest will be arranged so that winners may be announced during Printing Education Week (January 16 to 22), and local prizes will be awarded at special assemblies.

National prizes will go to two separate groups. In fairness to the younger students, freshmen (including junior high ninth graders) and sophomores will be segregated into one group, while juniors and seniors will be in another division. First prize for the junior-senior group will be a university scholarship. A trip to New York City including visits to the largest metropolitan printing plants, the IPI Research Laboratories, and other points of interest will go to the second prize winner.

In the freshman-sophomore division, a trip to New York will be first prize. Second prize will be a $50 job printing press.

Four local prizes will be awarded (two in each group) for the best papers submitted at each school entered in the contest. These best essays are to be selected by local committees.

Judges for the national competition, and a committee of sponsors, will be announced next month.

To each school entering in the contest, IPI plans to donate a set of the books, "Three Monographs on Color" to be used as reference sources in the preparation of essays. As the contest progresses, other reference material will be supplied to the schools.

APPOINTED NEGOTIATOR

The management of the Akron (O.) *Beacon-Journal* has recently appointed Production Manager H. B. Reese as contract negotiator with all union employes except the News Writers' Guild.

The new appointment covers contractual relations with the eleven unions represented on the *Beacon Journal* personnel, as well as the various organizations associated with the publisher's allied newspapers.

With an enviable record for fair dealing, "H. B." will have the unique distinction of being an active member of the I.T.U. while acting as arbiter on wage matters for fellow unionists. The appointment bespeaks the confidence of the publisher in an executive who deserves the splendid recognition.

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STEREOTYPE SUPPLIES
TRY THE BEST
GUMMED PACKING FELT
ALL THICKNESSES
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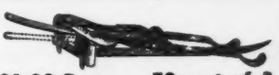
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Made Only by Originator. All Dealers.
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GENERAL REPAIR OF LINOTYPE AND INTERTYPE MOLDS (ANY KIND, ANY SIZE), PARTS, ETC., SINCE 1912
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PYROMETERS Portable and Wall Type for stereotype or remelting pots, linotype, intertype and monotype metal temperatures.
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Sizes available: Regular, Teletype, Thin, Extra Thin and Jumbo
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"MEANS THE BEST"
IN ENGRAVERS' SUPPLIES
Complete Stocks of Engravers' Bridgeport Copper and Besco Zomo and A-Z Alloy Plain and Backote Zinc.
Chemicals and Equipment—Write for Our Catalog
BRIDGEPORT ENGRAVERS' SUPPLY CO.
1969 E. 119th St., Cleveland, O.

Cost Computation

(*Continued from Page 4*)

about where we started, or $3007.50, but which, at that, runs the cost per column of advertising still a little higher.

Where an equal ratio is maintained between columns of news and columns of advertising an increase or decrease in the number of pages printed will naturally show a like variation in cost per page, as well as cost per column of advertising. But should page costs be low as compared to averages at hand, yet the cost per column of advertising excessive, the remedy is first to bring news space and ad space more into harmony, and second, to revise the methods of production—unnecessary editions, make-overs, resets, revamping of pages, etc.

Summed up, my point is that a low page cost does not mean economical production, if the cost can not be balanced properly against columns of revenue carried.

Film News Ink

(*Continued from Page 32*)

improve ment possibilities in quality and quantity news paper production.

Form rollers are the important elements of an inking arrangement. Some authorities claim one inch of rubber should be used on approximately 6 in. diam. rollers, others that considerably less is quite sufficient. Some advise one plasticity of composition, some another.

Add this to the great differences in roller cores, lengths, diameters, position in the press and you have evidence of further need of scientific correction in inking equipments.

This situation will not be cleared up in the interests of quality and speed advances until the necessary basic principle of rigidity is more fully incorporated in form roller design, to establish an equitable foundation upon which to build a more satisfactory form roller.

Improvements in inking devices generally would aid materially in suggesting how and why news ink might be economically improved and used to provide a thinner, more dense film of ink rather than a flood of it. Too little frank discussion of this subject has lessened incentive for improvements that would surely follow a better understanding of what constitutes an ideal newspaper inking function. Such discussion might provide that most important of newspaper printing requisites—a dependable, consistent and accurately proportioned film of news ink.

The writer hopes to see the day soon, when these mechanical improvements will be made in inking devices, affording an opportunity to secure the primary resiliency values of roller coverings and press blankets in their full activity.

*Production Manager Oakland (Calif.) *Tribune*.

PALMER PASSES

F. C. Palmer, a member of the Mechanical Committee of the A.N.P.A. Mechanical Department and foreman for many years of the stereotype department of the Jersey City (N. J.) *Journal*, passed away last month at his home in Montclair, N. J. He was 65 years of age.

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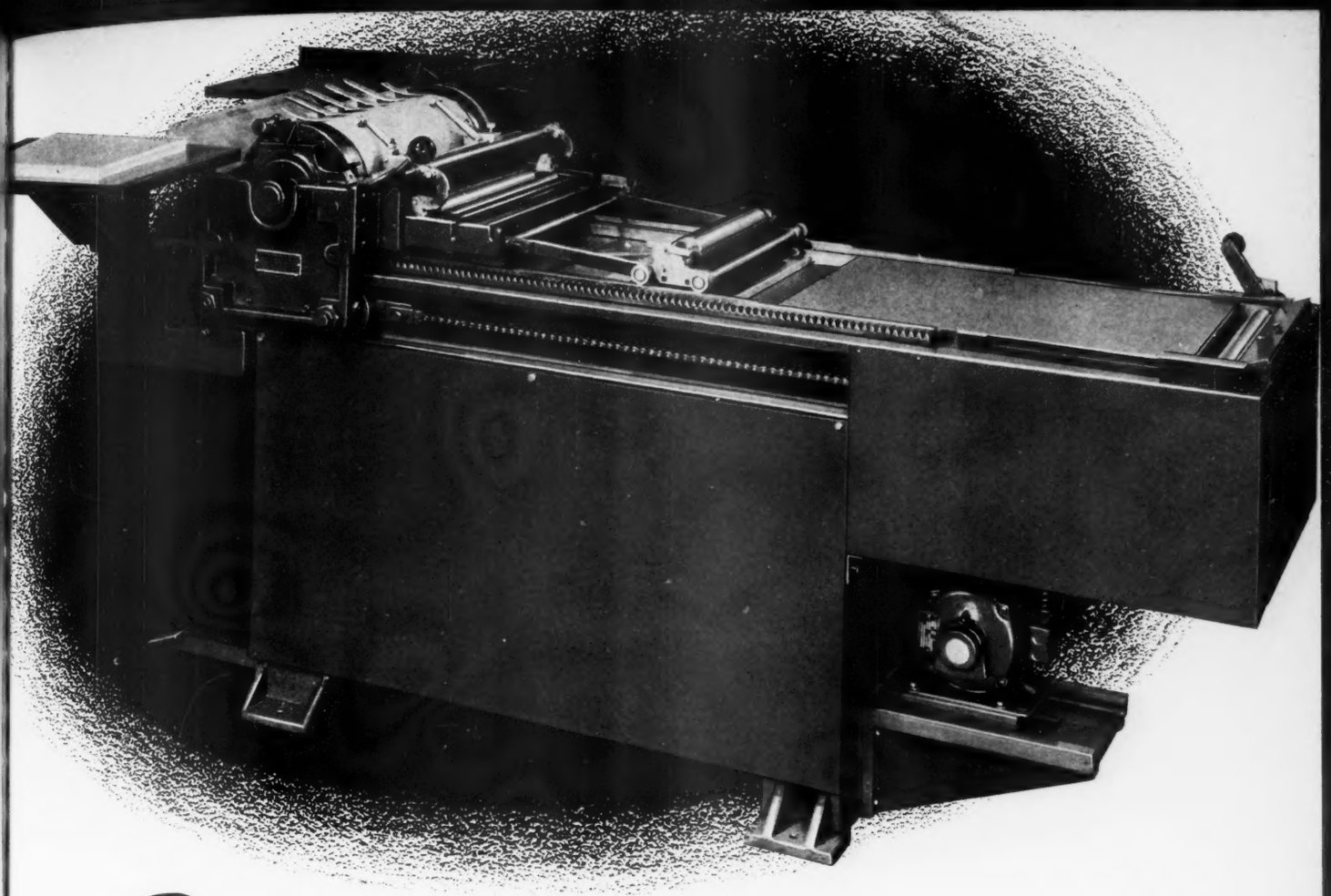


Repeat Orders...

Newspaper or Commercial Plants

Twenty-five proofs a minute may be printed on the No. 317 VANDERCOOK POWER PROVING MACHINE. Printing is production press quality. It will take sheets ranging in size from 17" x 27" down to 4" x 4".

It is profitable in newspaper or commercial printing plant as evidenced by the following installations:

Chicago Daily Times

1st No. 317 Power Vandercook installed, January 2, 1936.

2nd No. 317 Power Vandercook installed, July 9, 1937.

Poole Brothers, Inc., Chicago, Illinois

1st No. 317 Power Vandercook installed, July 15, 1936.

2nd No. 317 Power Vandercook installed, January 8, 1937.

No. 317 VANDERCOOK prints type forms, halftones, single or four-color process plates. Automatic ink distribution is adjustable to fine cylinder press accuracy. It is ample for heavy forms in continuous operation at full speed.

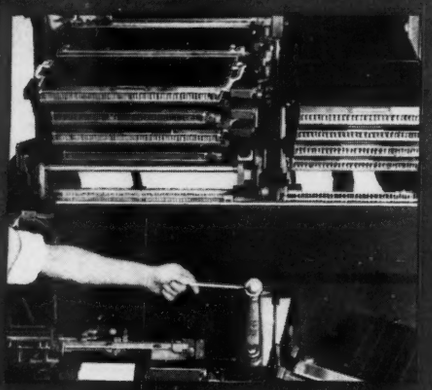
Impression cylinder packing is easily accessible, permitting quick make-ready. Bed is clear of obstruction, convenient to the operator for changes or corrections.

Delivery is semi-automatic, the sheet being returned to the operator by delivery fingers. Feed and delivery boards are arranged for minimum motion. Rigid bed construction insures even, rigid impression.

Write for illustrated circular giving complete details.

Here are THREE MORE of Intertype's profit-earning 101 features...

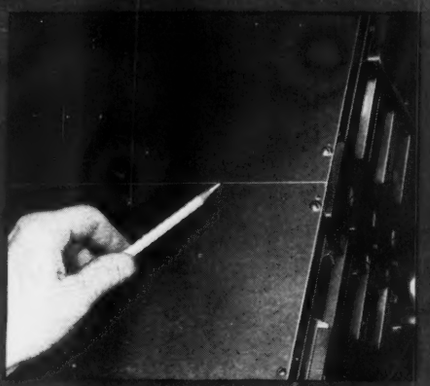
No. 6 LIGHT-ACTION MAGAZINE SHIFT



No. 7 COUNTERBALANCE

No Heaviness. By counterbalancing weight of the four magazines, this simple mechanism insures ease of shifting from one magazine to another, and its simplicity insures trouble-free operation.

No. 8 NEW FOUR-MAGAZINE SIDE UNIT



No chance for trouble to happen here. Each side magazine has its own stub. Hence the magazines and their stubs do not separate when the magazines are shifted. This eliminates any chance for a stuck matrix to straddle the gap between a side magazine and its stub, thus causing trouble.

No running out of sorts. Another [illegible] having a separate stub for each [illegible] magazines. Full channels of [illegible] such as figure matrices in advertising [illegible] work, for example—can be carried [illegible] unnecessary delays waiting for the [illegible]

Intertype's 101 features cut costs and increase type production. A complete list of them, illustrated, will be furnished on request. Address Intertype Corporation, Brooklyn, New York.

Step ahead with Streamlined Intertypes